



**NARASARAOPETA**  
**ENGINEERING COLLEGE**  
(AUTONOMOUS)

**DEPARTMENT OF MECHANICAL ENGINEERING**

**COURSE FILE**

Academic year : 2021-22

Department : ME

Course Name : B.Tech

Student's Batch : 2022-23

Regulation : R19

Year and Semester : III B.Tech I Semester

Name of the Subject : Entrepreneurship & Innovation

Subject Code : 19BCC5TH01

Faculty In charge : Dr. P. Suresh Babu

  
Signature of Faculty

  
Head of the Department



**DEPARTMENT OF MECHANICAL ENGINEERING**

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**NARASARAOPETA**  
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**DEPARTMENT OF MECHANICAL ENGINEERING**

# **INSTITUTE VISION AND MISSION**



## DEPARTMENT OF MECHANICAL ENGINEERING

### INSTITUTE VISION AND MISSION

#### VISION:

To emerge as a **Centre of excellence** in technical education with a blend of effective **student centric teaching learning** practices as well as **research** for the transformation of **lives and community**.

#### MISSION:

1. Provide the best class infrastructure to explore the field of engineering and research.
2. Build a passionate and a determined team of faculty with student centric teaching, imbining experiential and innovative skills.
3. Imbibe lifelong learning skills, entrepreneurial skills and ethical values in students for addressing societal problems.



PRINCIPAL





**NARASARAOPETA**  
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**DEPARTMENT OF MECHANICAL ENGINEERING**

# **DEPARTMENT VISION AND MISSION**



## **DEPARTMENT OF MECHANICAL ENGINEERING**

### **DEPARTMENT VISION AND MISSION**

#### **VISION:**

To strive for making competent **Mechanical Engineering Professionals** to cater the real time needs of Industry and **Research** Organizations of high repute with **Entrepreneurial Skills and Ethical Values**.

#### **MISSION:**

- M1.** To train the students with State of Art Infrastructure to make them industry ready professionals and to promote them for higher studies and research.
- M2.** To employ committed faculty for developing competent mechanical engineering graduates to deal with complex problems.
- M3.** To support the students in developing professionalism and make them socially committed mechanical engineers with morals and ethical values.



**HOD-ME**





**DEPARTMENT OF MECHANICAL ENGINEERING**

**PROGRAM EDUCATIONAL  
OBJECTIVES (PEOs)  
AND  
PROGRAM SPECIFIC  
OUTCOMES (PSOs)**



## **DEPARTMENT OF MECHANICAL ENGINEERING**

### **PROGRAM EDUCATIONAL OBJECTIVES (PEOs)**

- PEO 1:** Excel in profession with sound knowledge in mathematics and applied sciences
- PEO 2:** Demonstrate leadership qualities and team spirit in achieving goals
- PEO 3:** Pursue higher studies to ace in research and develop as entrepreneurs.

### **PROGRAM SPECIFIC OUTCOMES (PSOs)**

- PSO1.** The students will be able to apply knowledge of modern tools in manufacturing enabling to conquer the challenges of Modern Industry.
- PSO2.** The students will be able to design various thermal engineering systems by applying the principles of thermal sciences.
- PSO3.** The students will be able to design different mechanisms and machine components of transmission of power and automation in modern industry.



HOD-ME





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**DEPARTMENT OF MECHANICAL ENGINEERING**

# **PROGRAM OUTCOMES**

## **(POs)**



## DEPARTMENT OF MECHANICAL ENGINEERING

### PROGRAM OUTCOMES (POs):

Engineering Graduates will be able to:

- 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. Problem analysis:** Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- 4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- 6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- 7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- 11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- 12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

  
HOD-ME



**DEPARTMENT OF MECHANICAL ENGINEERING**

# **BLOOM'S TAXONOMY LEVELS**



## REVISED Bloom's Taxonomy Action Verbs

Definitions	I. Remembering	II. Understanding	III. Applying	IV. Analyzing	V. Evaluating	VI. Creating
<b>Bloom's Definition</b>	Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.	Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.	Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.	Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.	Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.
<b>Verbs</b>	<ul style="list-style-type: none"> <li>Choose</li> <li>Define</li> <li>Find</li> <li>How</li> <li>Label</li> <li>List</li> <li>Match</li> <li>Name</li> <li>Omit</li> <li>Recall</li> <li>Relate</li> <li>Select</li> <li>Show</li> <li>Spell</li> <li>Tell</li> <li>What</li> <li>When</li> <li>Where</li> <li>Which</li> <li>Who</li> <li>Why</li> </ul>	<ul style="list-style-type: none"> <li>Classify</li> <li>Compare</li> <li>Contrast</li> <li>Demonstrate</li> <li>Explain</li> <li>Extend</li> <li>Illustrate</li> <li>Infer</li> <li>Interpret</li> <li>Outline</li> <li>Relate</li> <li>Rephrase</li> <li>Show</li> <li>Summarize</li> <li>Translate</li> </ul>	<ul style="list-style-type: none"> <li>Apply</li> <li>Build</li> <li>Choose</li> <li>Construct</li> <li>Develop</li> <li>Experiment with</li> <li>Identify</li> <li>Interview</li> <li>Make use of</li> <li>Model</li> <li>Organize</li> <li>Plan</li> <li>Select</li> <li>Solve</li> <li>Utilize</li> </ul>	<ul style="list-style-type: none"> <li>Analyze</li> <li>Assume</li> <li>Categorize</li> <li>Classify</li> <li>Compare</li> <li>Conclusion</li> <li>Contrast</li> <li>Discover</li> <li>Dissect</li> <li>Distinguish</li> <li>Divide</li> <li>Examine</li> <li>Function</li> <li>Inference</li> <li>Inspect</li> <li>List</li> <li>Motive</li> <li>Relationships</li> <li>Simplify</li> <li>Survey</li> <li>Take part in</li> <li>Test for</li> <li>Theme</li> </ul>	<ul style="list-style-type: none"> <li>Agree</li> <li>Appraise</li> <li>Assess</li> <li>Award</li> <li>Choose</li> <li>Compare</li> <li>Conclude</li> <li>Criteria</li> <li>Criticize</li> <li>Decide</li> <li>Deduct</li> <li>Defend</li> <li>Determine</li> <li>Disprove</li> <li>Estimate</li> <li>Evaluate</li> <li>Explain</li> <li>Importance</li> <li>Influence</li> <li>Interpret</li> <li>Judge</li> <li>Justify</li> <li>Mark</li> <li>Measure</li> <li>Opinion</li> <li>Perceive</li> <li>Prioritize</li> <li>Prove</li> <li>Rate</li> <li>Recommend</li> <li>Rule on</li> <li>Select</li> <li>Support</li> <li>Value</li> </ul>	<ul style="list-style-type: none"> <li>Adapt</li> <li>Build</li> <li>Change</li> <li>Choose</li> <li>Combine</li> <li>Compile</li> <li>Compose</li> <li>Construct</li> <li>Create</li> <li>Delete</li> <li>Design</li> <li>Develop</li> <li>Discuss</li> <li>Elaborate</li> <li>Estimate</li> <li>Formulate</li> <li>Happen</li> <li>Imagine</li> <li>Improve</li> <li>Invent</li> <li>Make up</li> <li>Maximize</li> <li>Minimize</li> <li>Modify</li> <li>Original</li> <li>Originate</li> <li>Plan</li> <li>Predict</li> <li>Propose</li> <li>Solution</li> <li>Solve</li> <li>Suppose</li> <li>Test</li> <li>Theory</li> </ul>

lerson, L. W., & Krathwohl, D. R. (2001). A taxonomy for learning, teaching, and assessing, Abridged Edition. Boston, MA: Allyn and Bacon.





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# **COURSE OUTCOMES**

## **(COs)**



## **COURSE OBJECTIVES**

**The course content enables students to:**

- Creating awareness among the students about the significance of entrepreneurship and its social relevance.
- Imparting knowledge to the students on institutional support available to start a business venture
- To understand the significance of entrepreneurial training in the development of new and existing entrepreneurs

## **COURSE OUTCOMES**

**After successful completion of this course, the students will be able to:**

- CO1** : Outline the concepts of Entrepreneurship.
- CO2** : Create the awareness on creativity and innovation.
- CO3** : Adopt the Entrepreneurship Development programs
- CO4** : Evaluate the project planning and feasibility studies
- CO5** : Analyze the concept of small and micro enterprises.





**DEPARTMENT OF MECHANICAL ENGINEERING**

# **COURSE INFORMATION SHEET**





**Narasaraopeta Engineering College**  
(Autonomous)  
Yallmanda(Post), Narasaraopet- 522601  
**Department of Mechanical Engineering**

**COURSE INFORMATION SHEET**

<b>PROGRAMME: B.Tech Mechanical Engineering</b>	
<b>COURSE: Entrepreneurship and Innovation</b>	Semester : <b>III-I</b> CREDITS: <b>2</b>
<b>COURSE CODE: (19BCC5TH01)</b> <b>REGULATION: Autonomous</b>	<b>COURSE TYPE (CORE /ELECTIVE / BREADTH/ S&amp;H): CORE</b>
<b>COURSE AREA/DOMAIN: Production Engineering</b>	<b>PERIODS: 5 Per Week.</b>

**COURSE OUTCOMES:**

SNO	Course Outcome Statement
CO1	<b>Outline</b> the concepts of Entrepreneurship (K2)
CO2	<b>Create</b> the awareness on creativity and innovation (K6)
CO3	<b>Adapt</b> the Entrepreneurship Development programs (K6)
CO4	<b>Evaluate</b> the project planning and feasibility studies (K5)
CO5	<b>Analyze</b> the concept of small and micro enterprises (K4)

**SYLLABUS:**

UNIT	DETAILS
I	<b>ENTREPRENEUR AND ENTREPRENEURSHIP</b>  Entrepreneur – Definitions, concept of entrepreneur, characteristics of entrepreneur, types of entrepreneurs, concept of entrepreneurship, characteristics of entrepreneurship, role of entrepreneurship in economic development, ethics and social responsibilities of an entrepreneur, Financial institutional support to entrepreneurs (IDBI, SISI, DIC, NIESBUD, Commercial banks etc.,
II	<b>CREATIVITY AND INNOVATION IN ENTREPRENEURSHIP</b>  Meaning and concept of creativity - Nature and characteristics of creativity -Creativity Process- Factors affecting creativity - Meaning and Importance Innovation - Process -Distinguish the Creativity and Innovation.
III	<b>ENTREPRENEURSHIP DEVELOPMENT PROGRAMMES</b>  Designing Appropriate Training Programme to inculcate Entrepreneurial Spirit -Training for Entrepreneurs, Entrepreneurship Development Programme (EDP) – Need and objectives of EDP's -Phases and evolution on EDP's existing and new Entrepreneurs.
IV	<b>PROJECT PLANNING AND FEASIBILITY STUDIES</b>  Meaning of a project, Project identification – Sources of new Ideas, Methods of generating ideas, Project selection, - Project Feasibility Study -Project evaluation and Techniques (PBP,



	ARR, NPV, IRR & PI).
V	<b>SMALL AND MICRO ENTERPRISES</b> Importance, definitions, MSME's Development Act 2006 – policies and their support to MSMEs - Growth of Firm and growth strategies, Factors inducing growth – sickness in small business and remedies.

TEXT BOOKS	
T	BOOK TITLE/AUTHORS/PUBLISHER
T1	“Entrepreneurship”, Arya Kumar: Pearson, Publishing House, New Delhi, 2012
T2	“Entrepreneurship”, VSP Rao, Kuratko: Cengage Learning, New Delhi, 2012
T3	ShoimoMaital, DVR Seshadri, “Innovation Management”, Response Books 2007
REFERENCE BOOKS	
R	BOOK TITLE/AUTHORS/PUBLISHER
R1	“Entrepreneurship Development” B.Janakiram, M Rizwana: Excel Books, ND, 2011
R2	“Entrepreneurship Development”, P.C.Shejwalkar Everest Publishing House, ND, 2011
R3	Vinnie Jauhari & Sudhanshu Bhushan, “Innovation Management”. Oxford University Press, 2014.

#### TOPICS BEYOND SYLLABUS/ADVANCED TOPICS:

SNO	DESCRIPTION	Associated PO & PSO
1	Operations Management	PO6, PO9, PO10, PO11
2	Resource Management	PO1, PO2, PO10

#### WEB SOURCE REFERENCES:

1	<a href="https://nptel.ac.in/courses/110/106/110106141/">https://nptel.ac.in/courses/110/106/110106141/</a>
2	<a href="https://nptel.ac.in/courses/110/105/110105121/">https://nptel.ac.in/courses/110/105/110105121/</a>
3	<a href="https://nptel.ac.in/courses/110/107/110107094/">https://nptel.ac.in/courses/110/107/110107094/</a>
4	<a href="https://onlinecourses.nptel.ac.in/noc19_mg55/preview">https://onlinecourses.nptel.ac.in/noc19_mg55/preview</a>
5	<a href="https://onlinecourses.swayam2.ac.in/cec20_mg19/preview">https://onlinecourses.swayam2.ac.in/cec20_mg19/preview</a>
6	<a href="https://www.eshipsimplified.com/entrepreneurship-development-course">https://www.eshipsimplified.com/entrepreneurship-development-course</a>
7	<a href="https://nptel.ac.in/content/storage2/courses/106108103/pdf/Lecture_Notes/LNm4.pdf">https://nptel.ac.in/content/storage2/courses/106108103/pdf/Lecture_Notes/LNm4.pdf</a>
8	<a href="https://nptel.ac.in/courses/105/106/105106149/">https://nptel.ac.in/courses/105/106/105106149/</a>
9	<a href="https://onlinecourses.nptel.ac.in/noc21_hs52/preview">https://onlinecourses.nptel.ac.in/noc21_hs52/preview</a>
10	<a href="https://wbmsme.gov.in/what_msme">https://wbmsme.gov.in/what_msme</a>

#### DELIVERY/INSTRUCTIONAL METHODOLOGIES:

<input checked="" type="checkbox"/> Chalk & Talk	<input checked="" type="checkbox"/> PPT	<input type="checkbox"/> Active Learning
<input checked="" type="checkbox"/> Web Resources	<input type="checkbox"/> Students Seminars	<input type="checkbox"/> Case Study



<input type="checkbox"/> Blended Learning	✓ <input type="checkbox"/> Quiz	<input type="checkbox"/> Tutorials
<input type="checkbox"/> Project based learning	✓ <input type="checkbox"/> NPTEL/MOOCs	<input type="checkbox"/> Simulation
<input type="checkbox"/> Flipped Learning	✓ <input type="checkbox"/> Industrial Visit	<input type="checkbox"/> Model Demonstration
<input type="checkbox"/> Brain storming	<input type="checkbox"/> Role Play	<input type="checkbox"/> Virtual Labs

#### MAPPING CO'S WITH PO'S

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C311.1	-	-	-	-	-	2	-	3	-	-	2	-	-	-	-
C311.2	-	-	3	1	-	2	-	-	-	-	-	-	-	-	-
C311.3	-	-	3	1	-	2	-	-	-	-	-	-	-	-	-
C311.4	-	-	2	-	-	2	2	-	-	-	2	-	-	-	-
C311.5	-	-	2	-	-	2	2	-	-	-	2	-	-	-	-
Average	-	-	2.5	1	-	2	2	3	-	-	2	-	-	-	-

#### MAPPING COURSE WITH POs & PSOs

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C311	-	-	2.5	1	-	2	2	3	-	-	2	-	-	-	-

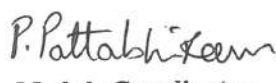
#### COURSE OUTCOME RUBRIC (ASSESSMENT PER STUDENT):

ASSESSMENT TOOL WITH WEIGHTAGE	METHOD	ATTAINMENT LEVEL 3 (EXCELLENT)	ATTAINMENT LEVEL 2 (GOOD)	ATTAINMENT LEVEL 1 (AVERAGE)	ATTAINMENT LEVEL 0 (POOR)
Internal tests (40%)	Direct	Student secured $\geq 60\%$ marks of allocated marks for that CO	Student secured $\geq 60\%$ and $< 50\%$ marks of allocated marks for that CO	Student secured $\geq 50\%$ and $< 40\%$ marks of allocated marks for that CO	Student secured $< 40\%$ marks of allocated marks for that CO
End Semester Examination (50%)	Direct	Student secured grades B* in External Exam	Student secured grades C* in External Exam	Student secured grades D* in External Exam	Student secured grades F* in External Exam
Course end Survey (10%)	Indirect	Student selected option	Student selected option	Student selected option	Student selected option

\* Grade Definition: S:  $\geq 90\%$ ; A: 80%-89%; B: 70%-79%; C: 60%-69%; D: 50%-59%; E: 40%-49%; F:  $< 40\%$

  
Course Instructor

  
Course Coordinator

  
Module Coordinator

  
Head of the Department



## ANNEXURE I:

**(A) PROGRAM OUTCOMES(POs) Engineering Graduates will be able to:**

- 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- 4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- 6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- 7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- 11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- 12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### **(B) PROGRAM SPECIFIC OUTCOMES (PSOs) :**

PSO1. The students will be able to understand the modern tools of machining which gives them good expertise on advanced manufacturing methods.

PSO2. The students will be able to design different heat transfer devices with emphasis on combustion and power production.

PSO3. The students are able to design different mechanisms and machine components suitable to automation industry.

### **Cognitive levels as per Revised Blooms Taxonomy:**

Cognitive Domain	LEVEL	Key words
Remember	K1	Defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states.
Understand	K2	Comprehends, converts, defends, distinguishes, estimates, explains, extends, generalizes, gives an example, infers, interprets, paraphrases, predicts, rewrites, summarizes, translates.
Apply	K3	Applies, changes, computes, constructs, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, selects, shows, solves, uses.
Analyse	K4	Analyzes, breaks down, compares, contrasts, diagrams, deconstructs, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, relates, selects, separates.
Evaluate	K5	Appraises, compares, concludes, contrasts, criticizes, critiques, defends, describes, discriminates, evaluates, explains, interprets, justifies, relates, summarizes, supports
Create	K6	Categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, write





**DEPARTMENT OF MECHANICAL ENGINEERING**

# **ACADEMIC CALENDAR**





Narasaraopeta Engineering College (Autonomous)  
Kotappakonda Road, Yellamanda (P.O), Narasaraopet- 522601, Guntur District, AP.

**ACADEMIC CALENDAR**  
**(B.Tech. 2020 admitted batch, Academic Year 2021-22)**

2020 Batch 2 <sup>nd</sup> Year 1 <sup>st</sup> Semester			
Description	From Date	To Date	Duration
Commencement of Class Work	11-10-2021		7 Weeks
1 <sup>st</sup> Spell of Instructions	11-10-2021	27-11-2021	
Assignment Test-I	01-11-2021	06-11-2021	
I Mid examinations	29-11-2021	04-12-2021	1 Week
2 <sup>nd</sup> Spell of Instructions	06-12-2021	22-01-2022	7 Weeks
Assignment Test-II	27-12-2021	01-01-2022	
II Mid examinations	24-01-2022	29-01-2022	1 Week
Preparation & Practicals	31-01-2022	05-02-2022	1 Week
Semester End Examinations	07-02-2022	19-02-2022	2 Weeks
2020 Batch 2 <sup>nd</sup> Year 2 <sup>nd</sup> Semester			
Commencement of Class Work	21-02-2022		7 Weeks
1 <sup>st</sup> Spell of Instructions	21-02-2022	09-04-2022	
Assignment Test-I	14-03-2022	19-03-2022	
I Mid examinations	11-04-2022	16-04-2022	1 Week
2 <sup>nd</sup> Spell of Instructions	18-04-2022	04-06-2022	7 Weeks
Assignment Test-II	09-05-2022	14-05-2022	
II Mid examinations	06-06-2022	11-06-2022	1 Week
Preparation & Practicals	13-06-2022	18-06-2022	1 Week
Semester End Examinations	20-06-2022	02-07-2022	2 Weeks
Commencement of 3 <sup>rd</sup> Year 1 <sup>st</sup> Sem Class Work	04-07-2022		

**PRINCIPAL**





**DEPARTMENT OF MECHANICAL ENGINEERING**

# **TIME TABLE**



**NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET (AUTONOMOUS)**  
**DEPARTMENT OF MECHANICAL ENGINEERING**  
**III B.TECH I SEM TIME TABLE**

**Section-A**

ROOM NO: 1320

Wef: 13/09/2021, Modified on 06/10/21

	1	2	BREAK	3	4	5	6	7
TIMINGS	9.10-10.00	10.00-10.50	10.50-11.00	11.00-11.50	11.50-12.40	1.30-2.20	2.20-3.10	3.10-4.00
MON	BMCE			E&I		MCMT	MCMT/HPE LAB	
TUE	HPE			OOPS- JAVA		MCMT	ES/DS LAB	
WED	MCMT			E&I	HPE	OOPS- JAVA	L/S/M	
THU	JAVA			MCMT/HPE LAB		BMCE	DME-I	HPE
FRI	E&I			ES/DS LAB		DME-I	JAVA	BMCE
SAT	MCMT			DME-I		BMCE	E&I	HPE

**CODE**

BMCE

MCMT

HPE

DME-I

E&I

OTJ

MCMT LAB

HPE Lab

ES Lab

L/S/M

**SUBJECT**

Business Management Concepts for Engineers

Metal Cutting & Machine Tools

Heat Power Engineering

Design of Machine Elements -I

Entrepreneurship and Innovation

Oops Through JAVA

Metal Cutting & Machine Tools Lab

Heat Power Engineering Lab

Engineering Skills Lab

Library/Sports/Mentoring

**FACULTY**

Mrs. Sd.Salma

Dr.D.Suneel

Mr.MD.Taju

Mr. M.Srinadh

Dr.S.Jaya Krishna

Mr.T.V.Rao

Mr. Y.Suvarna Kumar /Mrs.D.Raghavendra

Dr.D.Jagadish /P.Sravani

Dr.Babu.R/Mr.K.Kiran Chand

  
**Signature of HOD**

  
**Signature of Principal**



**NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET (AUTONOMOUS)**  
**DEPARTMENT OF MECHANICAL ENGINEERING**  
**III B.TECH I SEM TIME TABLE**

ROOM NO:1321

Section-B

Wef: 13/09/2021									
	1	2	BREAK	3	4		5	6	7
TIMINGS	9.10-10.00	10.00-10.50	10.50-11.00	11.00-11.50	11.50-12.40	12.40-1.30	1.30-2.20	2.20-3.10	3.10-4.00
MON	HPE		B R E A K	11.00-11.50	11.50-12.40	L U N C H	1.30-2.20	2.20-3.10	3.10-4.00
TUE	DME-I			DME-I			BMCE	ES/DS LAB	
WED	E&I			OOPS- JAVA			E&I	MCMT/HPE LAB	
THU				MCMT			OOPS- JAVA		HPE
FRI	BMCE			ES/DS LAB			E&I		L/S/M
SAT	JAVA			MCMT			BMCE		JAVA
	BMCE	MCMT/HPE LAB					E&I	HPE	DME-I
CODE	SUBJECT								
BMCE									

**SUBJECT**

Business Management Concepts for Engineers  
 Metal Cutting & Machine Tools  
 Heat Power Engineering  
 Design of Machine Elements -I  
 Entrepreneurship and Innovation  
 Oops Through JAVA  
 Metal Cutting & Machine Tools Lab  
 Heat Power Engineering Lab  
 Engineering Skills Lab  
 Library/Sports/Mentoring

**FACULTY**

Mr. D.Satish  
 Dr.M.Sreenivasa Kumar  
 Mrs.D.Raghavendra  
 Mr.R.Chinna Rao  
 Dr. P.Suresh Babu  
 Mr. K.Jail Singh  
 Mr.R.Chinna Rao/Mr.K.Jail sing  
 Mr.SK.Nagul Meeravali/D.Raghavendra  
 Mr.A.Pavan Kumar/ Mr.B.Ajay Kumar

Signature of HOD

Signature of Principal





**DEPARTMENT OF MECHANICAL ENGINEERING**

# **SYLLABUS COPY**



III B.TECH-I-SEMESTER	L	T	P	INTERNAL MARKS	EXTERNAL MARKS	TOTAL MARKS	CREDITS
	2	0	0	40	60	100	2
<b>Code: 19BCC5TH01</b>	<b>ENTREPRENEURSHIP &amp; INNOVATION</b>						

**COURSE OBJECTIVES:**

The course content enables students to:

- Creating awareness among the students about the significance of entrepreneurship and its social relevance.
- Imparting knowledge to the students on institutional support available to start a business venture
- To understand the significance of entrepreneurial training in the development of new and existing entrepreneurs

**COURSE OUTCOMES:**

After successful completion of this course, the students will be able to:

- CO1 : Outline the concepts of Entrepreneurship.  
 CO2 : Create the awareness on creativity and innovation.  
 CO3 : Adopt the Entrepreneurship Development programs  
 CO4 : Evaluate the project planning and feasibility studies  
 CO5 : Analyze the concept of small and micro enterprises.

**UNIT –I: ENTREPRENEUR AND ENTREPRENEURSHIP**

Entrepreneur – Definitions, concept of entrepreneur, characteristics of entrepreneur, types of entrepreneurs, concept of entrepreneurship, characteristics of entrepreneurship, role of entrepreneurship in economic development, ethics and social responsibilities of an entrepreneur, Financial institutional support to entrepreneurs (IDBI, SISI, DIC, NIESBUD, Commercial banks etc.,

**UNIT-II: CREATIVITY AND INNOVATION IN ENTREPRENEURSHIP**

Meaning and concept of creativity - Nature and characteristics of creativity -Creativity Process- Factors affecting creativity - Meaning and Importance Innovation - Process -Distinguish the Creativity and Innovation.

**UNIT –III: ENTREPRENEURSHIP DEVELOPMENT PROGRAMMES**

Designing Appropriate Training Programme to inculcate Entrepreneurial Spirit -Training for Entrepreneurs, Entrepreneurship Development Programme (EDP) – Need and objectives of EDP's - Phases and evolution on EDP's existing and new Entrepreneurs.



#### **UNIT –IV: PROJECT PLANNING AND FEASIBILITY STUDIES**

Meaning of a project, Project identification – Sources of new Ideas, Methods of generating ideas, Project selection, - Project Feasibility Study -Project evaluation and Techniques (PBP, ARR, NPV, IRR & PI).

#### **UNIT –V: SMALL AND MICRO ENTERPRISES**

Importance, definitions, MSME's Development Act 2006 – policies and their support to MSMEs - Growth of Firm and growth strategies, Factors inducing growth – sickness in small business and remedies.

#### **TEXT BOOKS:**

1. “Entrepreneurship”, Arya Kumar: Pearson, Publishing House, New Delhi, 2012.
2. “Entrepreneurship”, VSP Rao, Kuratko: Cengage Learning, New Delhi, 2012
3. ShoimoMaital, DVR Seshadri, “Innovation Management”, Response Books 2007

#### **REFERENCES:**

1. “Entrepreneurship Development” B.Janakiram, M Rizwana: Excel Books, ND, 2011
2. “Entrepreneurship Development”, P.C.Shejwalkar Everest Publishing House, ND, 2011
3. Vinnie Jauhari& Sudhanshu Bhushan, “Innovation Management”. Oxford University Press, 2014.





**NARASARAOPETA**  
**ENGINEERING COLLEGE**  
(AUTONOMOUS)

**DEPARTMENT OF MECHANICAL ENGINEERING**

# **LESSON PLAN**





**Narasaraopeta Engineering College**  
(Autonomous)  
Yallmanda (Post), Narasaraopet- 522601

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**LESSON PLAN**

Course Code	Course Title (Regulation)	Sem	Branch	Contact Periods/Week	Sections
19BCC5TH01	Entrepreneurship and Innovation	III-I	Mechanical Engineering	5	A & B

COURSE OUTCOMES: Students are able to

S. No.	Course Outcome Statement
CO1	<b>Outline</b> the concepts of Entrepreneurship (K2)
CO2	<b>Create</b> the awareness on creativity and innovation (K6)
CO3	<b>Adapt</b> the Entrepreneurship Development programs (K6)
CO4	<b>Evaluate</b> the project planning and feasibility studies (K5)
CO5	<b>Analyze</b> the concept of small and micro enterprises (K4)

Unit No	Outcome	Topics/Activity		Ref Text book	Total Periods	Delivery Method
1	CO 1: <b>Outline</b> the concepts of Entrepreneurs hip (K2)	Unit-1. ENTREPRENEUR AND ENTREPRENEURSHIP				
		1.1	Entrepreneur – Definitions, concept of entrepreneur	T1, T2, R1	18	Chalk & Talk PPT& Tutorial.
		1.2	Characteristics of entrepreneur	T1, T2, R1		
		1.3	Types of entrepreneurs, concept of entrepreneurship, characteristics of entrepreneurship	T1, T2, R2		
		1.4	Role of entrepreneurship in economic development	T1, T2, R1		
		1.5	Ethics and social responsibilities of an entrepreneur	T1, T2, R1		
		1.6	Financial institutional support to entrepreneurs (IDBI, SISI,DIC, NIESBUD, Commercial banks etc.,	T1, T2, R1		
2	CO 2: <b>Create</b> the awareness on creativity and innovation (K6)	Unit-2 CREATIVITY AND INNOVATION IN ENTREPRENEURSHIP				
		2.1	Meaning and concept of creativity	T1, T2, R4	12	Chalk & Talk, PPT Tutorial, Active Learning & Case Study
		2.2	Nature and characteristics of creativity	T1, T2, R4		
		2.3	Creativity Process- Factors affecting creativity	T1, T2, R4		
		2.4	Meaning and Importance Innovation Process	T1, T2, R4		
		2.5	Distinguish the Creativity and Innovation	T1, T2, R4		
MID I EXAMINATIONS						
3		Unit-3. ENTREPRENEURSHIP DEVELOPMENT PROGRAMMES				



	CO 3: Adapt the Entrepreneurs hip Development programs (K6)	3.1	Designing Appropriate Training Programme to inculcate Entrepreneurial Spirit	T1, T2, R1	10	Chalk & Talk, PPT Tutorial Active Learning & Case Study
		3.2	Training for Entrepreneurs	T1, T2, R1		
		3.3	Entrepreneurship Development Programme (EDP)	T1, T2, R1		
		3.4	Need and objectives of EDP's	T1, T2, R1		
		3.5	Phases and evolution on EDP's existing and new Entrepreneurs.	T1, T2, R2		
4	CO 4: Evaluate the project planning and feasibility studies (K5)	Unit 4. PROJECT PLANNING AND FEASIBILITY STUDIES			9	Chalk & Talk PPT& Tutorial.
		4.1	Meaning of a project, Project identification	T1, T2, R3		
		4.2	Sources of new Ideas, Methods of generating ideas,	T1, T2, R3		
		4.3	Project selection, - Project Feasibility Study	T1, T2, R3		
		4.4	Project evaluation and Techniques (PBP, ARR,).	T1, T2, R3		
		4.5	Project evaluation and Techniques (NPV, IRR & PI).	T1, T2, R3		
5	CO 5. Analyze the concept of small and micro enterprises (K4)	Unit 5. SMALL AND MICRO ENTERPRISES			11	Chalk & Talk, PPT Tutorial, Active Learning & Case Study
		5.1	Importance, definitions, MSME's Development Act 2006	T1, T2, R1		
		5.2	Policies and their support to MSMEs	T1, T2, R1		
		5.3	Growth of Firm and growth strategies	T1, T2, R1		
		5.4	Factors inducing growth	T1, T2, R1		
		5.5	Sickness in small business and remedies	T1, T2, R1		
		Total		60		
MID II EXAMINATIONS						
END EXAMINATIONS						

TEXT BOOKS	
T	BOOK TITLE/AUTHORS/PUBLISHER
T1	"Entrepreneurship", Arya Kumar: Pearson, Publishing House, New Delhi, 2012
T2	"Entrepreneurship", VSP Rao, Kuratko: Cengage Learning, New Delhi, 2012
T3	ShoimoMaital, DVR Seshadri, "Innovation Management", Response Books 2007
REFERENCE BOOKS	
R	BOOK TITLE/AUTHORS/PUBLISHER
R1	"Entrepreneurship Development" B.Janakiram, M Rizwana: Excel Books, ND, 2011
R2	"Entrepreneurship Development", P.C.Shejwalkar Everest Publishing House, ND, 2011
R3	Vinnie Jauhari& Sudhanshu Bhushan, "Innovation Management". Oxford University Press, 2014

  
Faculty

  
HOD

  
Principal





**DEPARTMENT OF MECHANICAL ENGINEERING**

**CO-POs & CO-PSOs MAPPING  
(COURSE ARTICULATION  
MATRIX)**



CO Attainment						
CO	CO Attainment Level (Mid)	CO Attainment Level (External)	Direct CO Attainment Level (Internal * 30%) + (External * 70%)	Indirect CO Attainment Level	Total CO Attainment Level (Direct CO Attainment * 90% + Indirect CO Attainment * 10%)	Total CO Target Level
C214.1	3	0	0.9	3	1.11	2.4
C214.2	3	0	0.9	3	1.11	2.4
C214.3	0	0	0	3	0.3	2.4
C214.4	0	0	0	3	0.3	2.4
C214.5	0	0	0	3	0.3	2.4
C214					0.624	2.4

1. Copy the Direct CO Attainment Level (Internal) and Direct CO Attainment Level (External) from the previous sheets and then find the Direct CO Attainment Level.
2. Find Direct CO attainment level using the formula:  
CO Attainment Level (Internal) \* 30% + CO Attainment Level (External) \* 70%
3. Copy Indirect CO Attainment Level.
4. Find the CO attainment level using the formula:  
Direct CO Attainment Level \* 90% + Indirect CO Attainment Level \* 10%



CO-PO Mapping															
COs	POs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C214.1	3	3	2					3					3		-
C214.2	2	3	2					3					3		-
C214.3	3	3	2					3					3		-
C214.4	3	3	2					2					3		-
C214.5	2	3	2					1					3		-
C214	2.6	3	2	-	-	-	-	2.4	-	-	-	-	3	-	-

**Total CO Attainment through Direct & Indirect Assessment**

CO Attainment	0.624
---------------	-------

**PO Attainment**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
PO Attainment	0.54	0.62	0.42	-	-	-	-	0.50	-	-	-	-	0.62	-	-

1. Copy CO - PO matrix and CO attainment matrix from previous pages and find PO attainment.

2. PO attainment is calculated as per the following formula:

$$PO_i * \text{Total CO attainment Level} / 3 \text{ where 'i' ranges from 1 to 12}$$

1. Copy CO - PSO matrix and CO attainment matrix from previous pages and find PSO attainment.

2. PSO attainment is calculated as per the following formula:

$$PSO_i * \text{Total CO attainment Level} / 3 \text{ where 'i' ranges from 1 to 3}$$



**DEPARTMENT OF MECHANICAL ENGINEERING**

## **WEB REFERENCES**



## WEB SOURCE REFERENCES

1	<a href="https://nptel.ac.in/courses/110/106/110106141/">https://nptel.ac.in/courses/110/106/110106141/</a>
2	<a href="https://nptel.ac.in/courses/110/105/110105121/">https://nptel.ac.in/courses/110/105/110105121/</a>
3	<a href="https://nptel.ac.in/courses/110/107/110107094/">https://nptel.ac.in/courses/110/107/110107094/</a>
4	<a href="https://onlinecourses.nptel.ac.in/noc19_mg55/preview">https://onlinecourses.nptel.ac.in/noc19_mg55/preview</a>
5	<a href="https://onlinecourses.swayam2.ac.in/cec20_mg19/preview">https://onlinecourses.swayam2.ac.in/cec20_mg19/preview</a>
6	<a href="https://www.eshipsimplified.com/entrepreneurship-development-course">https://www.eshipsimplified.com/entrepreneurship-development-course</a>
7	<a href="https://nptel.ac.in/content/storage2/courses/106108103/pdf/Lecture_Notes/LNm4.pdf">https://nptel.ac.in/content/storage2/courses/106108103/pdf/Lecture_Notes/LNm4.pdf</a>
8	<a href="https://nptel.ac.in/courses/105/106/105106149/">https://nptel.ac.in/courses/105/106/105106149/</a>
9	<a href="https://onlinecourses.nptel.ac.in/noc21_hs52/preview">https://onlinecourses.nptel.ac.in/noc21_hs52/preview</a>
10	<a href="https://wbmsme.gov.in/what_msme">https://wbmsme.gov.in/what_msme</a>





**NARASARAOPETA**  
**ENGINEERING COLLEGE**  
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**DEPARTMENT OF MECHANICAL ENGINEERING**

# **STUDENT'S ROLL LIST**



**3-1 - Sec-A - Roll List - Entrepreneurship & Innovation**

S. No	Roll No.	Name of the student
1	19471A0301	ARIKATLA RAGHU RAMI REDDY
2	19471A0302	BADDETI RAMBABU
3	19471A0303	BANDARU PRASANNA BABU
4	19471A0304	BOBBILI VISHNU VARDHAN REDDY
5	19471A0305	CHAVA ASHOK
6	19471A0306	CHIRUGURI KARUNAKAR
7	19471A0307	DURGAMPUDI MAHESH REDDY
8	19471A0308	GANGAVARAPU SRI CHANDRASEKHAR
9	19471A0309	GANNEPALLI RAVI
10	19471A0310	GANNEPALLII RAMESH
11	19471A0311	GONA VAMSI
12	19471A0312	GORANTLA ANIL
13	19471A0313	GUDE JAYANTH KUMAR
14	19471A0315	JANDHAYALA SANDLEYA
15	19471A0316	JANGA NAGENDRA BABU
16	19471A0317	JONNALAGADDA MADHU
17	19471A0318	KAKANI NAGENDRA BABU
18	19471A0319	KAMBAMPATI AJITHKUMAR
19	19471A0320	KIKKURU PRUDHVI YASHWANTH REDDY
20	19471A0321	KONDA JOHNY
21	19471A0322	LINGISETTY RAJASEKHAR
22	19471A0323	MAHANKALI RAKESH
23	19471A0324	MALLAVARAPU PRABHAKAR
24	19471A0326	MELAM STEPHEN WILLIAMS
25	19471A0327	NARENDRA BABU SADHE
26	19471A0328	NOORBASHA ANWAR BASHA



S. No	Roll No.	Name of the student
27	19471A0329	ONTERU VEERANJANEYULU
28	19471A0330	PATHAN AMEER KHAN
29	19471A0331	PEERLA HUSSIAN
30	19471A0333	PODILA GOPINADH
31	19471A0335	RAMAR SATISH KUMAR
32	19471A0336	SAVALAM MANI KUMAR
33	19471A0337	SHAIK JILANI
34	19471A0338	SHAIK MAHAMMAD BILAL
35	19471A0339	SHAIK MAHAMMAD RIYAZ
36	19471A0340	SHAIK SUBHANI
37	19471A0341	TALAKAYALA VINAY KUMAR
38	19471A0342	VADLAMUDI YASWANTH SAI
39	19471A0343	VEERLA KOTESWARA RAO
40	19471A0344	VEJARLA AVINASH
41	20475A0354	KOPPOLU BHANU PRASAD
42	20475A0355	CHOPPARA LAKSHMI SUMANTH
43	20475A0356	INDURI PRATHAP REDDY
44	20475A0357	INAGANTI NAGULMEERAVALI
45	20475A0358	BATTU JAGADEESH
46	20475A0359	VEMULA HEMANTH KUMAR
47	20475A0360	KAKARLAMUDI NAVEEN
48	20475A0361	KUMMARA PARAMESWARA RAO
49	20475A0362	BOKKA PRASANNA KUMAR
50	20475A0363	GANJI HASHWANTH PRAVEEN REDDY
51	20475A0364	URJANA SHANMUKHARAO
52	20475A0365	DAMERA SANTHOSH
53	20475A0366	MUVVA NAGA LAKSHMAIAH



**3-1 - Sec-B - Roll List - Entrepreneurship & Innovation**

S. No	Roll No.	Name of the student
1	20475A0301	PUTTA RAJESH
2	20475A0302	LINGIREDDY GOPI REDDY
3	20475A0303	YELURI RAKESH
4	20475A0304	VANGAVOLU NAGA SESHU
5	20475A0305	GUNJI VENKATA BHASKAR
6	20475A0306	THAPPETA RADHAKRISHNA
7	20475A0307	EDEBOINA ASHOK
8	20475A0308	MARRI AJAY KUMAR
9	20475A0309	MADEM JAYANTH KUMAR
10	20475A0310	RAJABATHULA KISHORE
11	20475A0311	SHAIK SAMEER
12	20475A0312	SHAIK THUPAKULA MASTAN VALI
13	20475A0313	PARIMI GANESH
14	20475A0314	MUVVA VAMSI
15	20475A0315	RYALI M T SURYA PRAKASH
16	20475A0316	SHAIK DASTAGIRI
17	20475A0317	MANDA RAJA SEKHAR
18	20475A0318	DANDE VENKATA GOPAL
19	20475A0319	KOTA LAKSHMI VARAPRASAD
20	20475A0320	BALACHANDAR M
21	20475A0321	KUKKAMALLA NIKHIL KUMAR
22	20475A0322	PENUMALA KALYAN
23	20475A0323	KOTHAMSETTI ASHOK
24	20475A0324	NUNNA BALA NAVEEN
25	20475A0325	KOTHAMASU ANANTA KOTI SRIKRISHNA
26	20475A0326	NAGISETTY RAKESH
27	20475A0327	RAVURI SIVANJANEYULU



S. No	Roll No.	Name of the student
28	20475A0328	ANKEM NAGENDRA BABU
29	20475A0330	PARASA NAVEEN
30	20475A0331	DUPATI ANIL
31	20475A0332	SHAIK NARAVADA ALTHAF HUSSAIN
32	20475A0333	RAVURI ANIL
33	20475A0334	TELUKUTLA SIVAREDDY
34	20475A0335	KOTARU SAIRAGHU VAMSI
35	20475A0336	MIDDELA BAJIVALI
36	20475A0337	VATTIGORLA YOGANJANEYULU
37	20475A0338	GANTASALA GOPI CHAND
38	20475A0339	KOILADA PRADEEP
39	20475A0340	DASARI HEMAGURUNADH
40	20475A0341	JILABOINA KARUNAKAR
41	20475A0342	MALLAVARAPU JESUDASU
42	20475A0343	VANGARA AYYAPPA
43	20475A0344	YADARI RAJESH
44	20475A0345	KASUKURTHI AKASH
45	20475A0346	KANAPARTHI VENKATA KRISHNA
46	20475A0347	SHAIK AMEER
47	20475A0348	MEKA SAI VINAY
48	20475A0349	AVVARU YUGANDHAR
49	20475A0350	CHINTALAPUDI SRIRAM
50	20475A0351	ILLA RATNAM RAJU
51	20475A0352	GUNTAKA HARIKRISHNA REDDY
52	20475A0353	GADIBOYINA NAGAI AH





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**HAND WRITTEN/PRINTED**  
**LECTURE NOTES**



# ENTREPRENEUR AND ENTREPRENEURSHIP

## Entrepreneur:-

An entrepreneur is an individual who creates a new business, bearing most of the risks and enjoying the most of the rewards. The entrepreneur is commonly seen as an inventor, a source of new ideas, goods, services and business/procedures. Entrepreneurs play a key role in any economy, using the skills and initiative necessary to anticipate needs and bringing good new ideas to market.

## Entrepreneurship:-

The process of setting up a business is known as entrepreneurship. Entrepreneurship that proves to be successful in taking on the risks of creating a start-up is rewarded with profits, fame, and continued growth opportunities. Entrepreneurship that fails results in losses and less prevalence in the markets for those involved.

## How Entrepreneurship works:-

Entrepreneurship is one of the resources economists categorize as integral to production, the other three being land/natural resources, labour and capital.



An entrepreneur combines the first three of these to manufacture goods or provide services. They typically create a business plan, hire labor, acquire resources and financing, and provide leadership and management for the business.

Entrepreneurs commonly face many obstacles when building their companies. The three that many of them cite as the most challenging are as follows:

1. Overcoming bureaucracy
2. Hiring talent
3. Obtaining financing

Economists have never had a consistent definition of "entrepreneur" or "entrepreneurship" (the word "entrepreneur" comes from French verb *entreprendre*, meaning "to undertake"). Though the concept of an entrepreneur existed and was known for centuries, the classical and neoclassical economists left entrepreneurs out of their formal models. They assumed that perfect information would be known to fully rational actors, leaving no room for risk-taking or discovery. It wasn't until the middle of the 20th century that economists seriously attempted to incorporate entrepreneurship into their models.



Three thinkers were central to the inclusion of entrepreneurs: Joseph Schumpeter, Frank Knight, and Israel Kirzner. Schumpeter suggested that entrepreneurs not just companies were responsible for the creation of new things in the search of profit. Knight focused on entrepreneurs as the bearers of uncertainty and believed they were responsible for risk premium in financial markets.

How to Become an Entrepreneur?

After retiring her professional dancing shoes, Judi Sheppard Missett became an entrepreneur by teaching a dance class to civilians in order to earn some extra cash. But she soon learned that women who came to her studio were less interested in learning precise steps than they were in losing weight and toning up. Sheppard Missett then trained instructors to teach her routines to the masses, and Jazzercise was born. A franchise deal followed. Today, the company has more than 8,300 locations worldwide!

Following an ice cream making correspondence course, two entrepreneurs, Jerry Greenfield and Ben Cohen, paired \$8,000 in savings with a \$4,000 loan, leased a Burlington, VT, gas station, and purchased equipment to create uniquely flavored ice cream for the local market. Today, Ben & Jerry's hauls in



annual revenue.

Although the "self-made man" (or woman) has always been a popular figure in American society, entrepreneurship has gotten greatly romanticized in the last few decades. In the 21<sup>st</sup> century, the example of Internet companies like Alphabet, aka Google (GOOG) and Facebook (FB), both of which have made their founders widely wealthy, have made people enamored with the idea of becoming entrepreneurs.

That said, there are seven general steps that most, if not all, successful entrepreneurs have followed:

#### Ensure financial stability :-

The first step is not a strict requirement but is definitely recommended. While entrepreneurs have built successful business while being less than financially flush (think of Facebook founder Mark Zuckerberg as a college student), starting out with an adequate cash supply and ensuring ongoing funding can only help an aspiring entrepreneur, increasing their personal runway and giving them more time to work on building a successful business, rather than worrying about making quick money.

#### Build a Diverse Skill Set:-

Once a person has strong finances, it is important to build a diverse set of skills and then apply those skills in the real world.



The beauty of step two is it can be done concurrently with step one.

Building a skill set can be achieved through learning and trying new tasks in real-world settings. For example, if an aspiring entrepreneur has a background in finance, they can move into a sales role at their existing company to learn the soft skills necessary to be successful. Once a diverse skill set is built, it gives an entrepreneur a toolkit that they can rely on when they are faced with the inevitability of tough situations.

Much has been discussed on if going to college is necessary to become a successful entrepreneur. Many famous entrepreneurs are famous for having dropped out of college: Steve Jobs, Mark Zuckerberg, and Larry Ellison, to name but a few.

Through going to college isn't necessary to build a successful business, it can teach young individuals a lot about the world in many other ways. And these famous college dropouts are the exception rather than the norm. College may not be for everyone and the choice is personal, but it is something to think about, especially with the high price tag of a college education in the USA.



Consume content Across Multiple channels:-

As important as building a diverse skill set, is, the need to be consume a diverse array of content is equally so. This content can be in the form of podcasts, books, articles or lectures. The important thing is that the content, no matter the channel, should be varied in the what it covers. An aspiring content entrepreneur should always familiarize themselves with the world around them so they can look at industries with a fresh perspective, giving them the ability to build a business around a specific sector.

Identify a problem to solve:-

Through the consumption of content across multiple channels, an aspiring entrepreneur is able to identify various problems to solve. One business adage dictates that a company's product or service needs to solve a specific pain point: either for another business or for a consumer group. Through the identification of a problem, an aspiring entrepreneur is able to build a business around solving that problem.

It is important to combine steps three and four so it is possible to identify a problem to solve by looking at various industries as an outsider. This often provides an aspiring entrepreneur with the ability to see the problem others



might not.

Solve that problem :-

Successful start ups solve a specific pain point for other companies or for the public. This is known as "adding value within the problem". Only through adding value to a specific problem or pain point does an entrepreneur become successful.

Say, for example, you identify the process for making a dentist appointment is complicated for patients, and dentists are losing customers as a result. The value could be to build an online appointment system that makes it easier to book appointments.

Network like crazy :-

Most entrepreneurs can't do it alone. The business world is a cutthroat one and getting any help you can will always help and reduce the time it takes to achieve a successful business. Networking is critical for new entrepreneurs. Meeting the right people that can introduce you to contacts in your industry, such as the right suppliers, financiers, and even mentors can be difference between success and failure.

Attending conferences, emailing and calling people within their company, people in industry, speaking



to your cousin's friend's brother who is in a similar business, will help you get out into the world and discover people that can guide you. Once you have your foot in the door with the right people, conducting a business becomes a lot easier.

### Lead by Example:-

Every entrepreneur needs to be a leader within their company. Simply doing the day-to-day requirements will not lead to success. A leader needs to work hard, motivate, and inspire their employees to reach their best potential, which will lead to success of the company.

Look at some of the greatest and most successful companies: all of them have had great leaders. Apple and Steve Jobs, Bill Gates and Microsoft, Bob Iger and Disney, and so on. Study these people and read their books to see how to be a great leader and become the leader that your employees can follow you by the example you set.



### How Entrepreneurs Make Money

Entrepreneurs make money like any business: they seek to generate revenues that are greater than costs. Increasing revenues is the goal and that can be achieved through marketing, word-of-mouth, and networking. Keeping costs low is also critical as it results in higher profit margins. This can be achieved through efficient operations and eventually economies of scale.

### Taxes for Entrepreneurs

The taxes you will pay as an entrepreneur will depend on how you set up your business in terms of structure.

**Sole Proprietorship:** A business set up this way is an extension of the individual. Business income and expenses are filed on Schedule C on your personal tax return and you are taxed at your individual tax rate.

**Partnership:** For tax purposes, a partnership functions the same way as a sole proprietorship, with the only difference being that income and expenses are split amongst the partners.

**C-Corporation:** A C-corporation is a separate legal entity and has separate taxes filed with the IRS from the entrepreneur. The business income will be taxed at the corporate tax rate rather than the personal income tax rate.

**Limited Liability Company (LLC) or S-Corporation:** These two options are taxed in the same manner as a C-corporation but usually at lower amounts.

### Characteristics of a Successful Entrepreneur or Entrepreneurship.

Essential characteristics to become a successful entrepreneur are as follows

- Creativity.
- Professionalism.
- Risk-taking.
- Passion.
- Planning.
- Knowledge.
- Social Skills.
- Open-mindedness towards learning, people, and even failure.
- Empathy
- The customer is everything:

#### 1) Creativity:

Creativity gives birth to something new. For without creativity, there is no innovation possible. Entrepreneurs usually have the knack to pin down a lot of ideas and act on them. Not necessarily every idea might be a hit. But the experience obtained is gold.

Creativity helps in coming up with new solutions for the problems at hand and allows one to think of solutions that are out of the box. It also gives an entrepreneur the ability to devise new products for similar markets to the ones he's currently playing in.

#### 2) Professionalism:

Professionalism is a quality which all good entrepreneurs must possess. An entrepreneur's mannerisms and behavior with their employees and clientele goes a long way in developing the culture of the organization.

Along with professionalism comes reliability and discipline. Self-discipline enables an entrepreneur to achieve their targets, be organized and set an example for everyone.

Reliability results in trust and for most ventures, trust in the entrepreneur is what keeps the people in the organization motivated and willing to put in their best. Professionalism is one of the most important **characteristics of an entrepreneur**.

#### 3) Risk-taking:

A risk-taking ability is essential for an entrepreneur. Without the will to explore the unknown, one cannot discover something unique. And this uniqueness might make all the difference. Risk-taking involves a lot of



things. Using unorthodox methods is also a risk. Investing in ideas, nobody else believes in but you is a risk too.

Entrepreneurs have a differentiated approach towards risks. Good entrepreneurs are always ready to invest their time and money. But, they always have a backup for every risk they take.

For exploring in the unknown, one must be bestowed with a trump card; a good entrepreneur has one, always. Also, evaluation of the risk to be undertaken is also essential. Without knowing the consequences, a good entrepreneur wouldn't risk it all.

#### **4) Passion:**

Your work should be your passion. So when you work, you enjoy what you're doing and stay highly motivated. Passion acts as a driving force, with which, you are motivated to strive for better.

It also allows you the ability to put in those extra hours in the office which can or may make a difference. At the beginning of every entrepreneurial venture or any venture, there are hurdles but your passion ensures that you are able to overcome these roadblocks and forge ahead towards your goal.

#### **5) Planning:**

Perhaps, this is the most important of all steps required to run a show. Without planning, everything would be a loose string as they say, "If you fail to plan, you plan to fail."

Planning is strategizing the whole game ahead of time. It basically sums up all the resources at hand and enables you to come up with a structure and a thought process for how to reach your goal.

The next step involves how to make optimum use of these resources, to weave the cloth of success. Facing a situation or a crisis with a plan is always better. It provides guidelines with minimum to no damage incurred to a business. Planning is one of the most important **characteristics of an entrepreneur**.

#### **6) Knowledge:**

Knowledge is the key to success. An entrepreneur should possess complete knowledge of his niche or industry. For only with knowledge can a difficulty be solved or a crisis is tackled.

It enables him to keep track of the developments and the constantly changing requirements of the market that he is in. May it is a new trend in the market or an advancement in technology or even a new advertiser's entry, an entrepreneur should keep himself abreast of it. Knowledge is the guiding force when it comes leaving the competition behind. New bits and pieces of information may just prove as useful as a newly devised strategy.

He should know what his strengths & weaknesses are so that they can be worked on and can result in a healthier organization.

A good entrepreneur will always try to increase his knowledge, which is why he is always a learner. The better an entrepreneur knows his playground, the easier he can play in it.

#### **7) Social Skills:**

A skillset is an arsenal with which an entrepreneur makes his business work. Social Skills are also needed to be a good entrepreneur. Overall, these make up the qualities required for an entrepreneur to function.

Social Skills involve the following:

- Relationship Building
- Hiring and Talent Sourcing
- Team Strategy Formulation



### **8) Open-mindedness towards learning, people, and even failure:**

An entrepreneur must be accepting. The true realization of which scenario or event can be a useful opportunity is necessary. To recognize such openings, an open-minded attitude is required.

An entrepreneur should be determined. He should face his losses with a positive attitude and his wins, humbly. Any good businessman will know not to frown on a defeat. Try till you succeed is the right mentality. Failure is a step or a way which didn't work according to the plan. A good entrepreneur takes the experience of this setback and works even hard with the next goal in line.

This experience is inculcated through the process of accepted learning. Good entrepreneurs know they can learn from every situation and person around them. Information obtained can be used for the process of planning.

Learning with an open mind lets you look at your faults humbly. New information always makes an entrepreneur question his current resolve. It also provides a new perspective towards a particular aspect. Open-mindedness also enables you to know and learn from your competition.

### **9) Empathy:**

Perhaps the least discussed value in the world today is empathy or having high emotional intelligence. Empathy is the understanding of what goes on in someone's mind. This is a skill that is worth a mention. A good entrepreneur should know the strengths and weaknesses of every employee who works under him. You must understand that it is the people who make the business tick! You've got to deploy empathy towards your people.

Unhappy employees are not determined and as an entrepreneur, it is up to you to create a working environment where people are happy to come. To look after their well-being, an entrepreneur should try to understand the situation of employees. What can be a motivational factor? How can I make my employees want to give their best? All this is understood through empathy.

Keeping a workplace light and happy is essential. For without empathy, an entrepreneur cannot reach the hearts of employees nor the success he desires. Empathy is one of the most important **characteristics of an entrepreneur**.

### **10) And lastly, the customer is everything:**

A good entrepreneur will always know this; a business is all about the customer. How you grab a customer's attention is the first step. This can be done through various mediums such as marketing and advertising.

It is also important that you know the needs of your customers. The product or service which is being created by your organization needs to cater to the needs of your consumers. Personalising a business for consumers will also boost the sales.

The ability to sell yourself in front of a potential investment when it comes in the form of a customer is also required. Being ready with the knowledge to please a customer, is a way to have a successful business.

It isn't necessary that every entrepreneurial venture is a huge success. In addition to a brilliant idea, viability is an equally important aspect of a business, which is where having a business education can play an important role. All these **characteristics of an entrepreneur** can be instilled in an individual



## The different types of entrepreneurship

- Small business entrepreneurship. ...
- Large company entrepreneurship. ...
- Scalable startup entrepreneurship. ...
- International entrepreneurship. ...
- Social entrepreneurship. ...
- Environmental entrepreneurship. ...
- Technopreneurship. ...
- Hustler entrepreneurship.

## 12 Different Types of Entrepreneurship

Entrepreneurs are people who establish a venture around innovation to change the world. Entrepreneurs are innovators capable of taking risks and possess specific skill sets like communication, leadership, business management and technical skills. Entrepreneurship is establishing, developing, organising and managing a business venture while bearing any of its risks to generate profits. As there are different businesses, there are also many types of entrepreneurship.

In this article, we will discuss 12 different types of entrepreneurship and learn about the characteristics of entrepreneurship.

### 1. Small business entrepreneurship

Small businesses represent an overwhelming majority of Indian entrepreneurial ventures. People who establish small business entrepreneurship make profits to support their families and live a modest lifestyle. As small businesses are small and lack the innovative factor, they fail to attract venture capital for smooth running. These people usually fund their ventures themselves or take up loans from friends and family members. The employees are usually local people or family members.

Local hairdressers, grocery shops, milk booths, plumbers, carpenters and small boutiques are part of the small business entrepreneurship.

### Related: How to Find Your Desired Career Path

### 2. Large company entrepreneurship

Companies with a finite life cycle display large company entrepreneurship. These companies sustain because of innovation and it is the best choice for advanced professionals who know how to sustain innovation. When you work in a large company, you are likely to be a part of a large C-level executive team. The products these companies offer are different variants around their core product. Small business entrepreneurship witnessing accelerated growth can become large company entrepreneurship in no time. This is also possible when a large company acquires them.

### 3. Scalable startup entrepreneurship

This type of entrepreneurship starts with a unique idea that can bring a change. From creating a business plan to launching it, scalable startup entrepreneurship recognises what is missing in the market and creates a solution. Such business usually receives funding from venture capitalists who provide funding based on the uniqueness of the idea. They hire specialised employees because they seek rapid expansion and high returns.

4. International entrepreneurship: In international entrepreneurship, entrepreneurs conduct business activities across the Indian national boundaries. This could either be opening a sales office in another country or exporting goods from India to a foreign country. International entrepreneurship is beneficial when the demand



for goods and services is declining in the domestic market and the demand arises from the international market. Usually, international entrepreneurs sell products in the Indian market until they reach the maturity stage and then sell them in the foreign market to earn profits.

## 5. Social entrepreneurship

Social entrepreneurship is a type of entrepreneurship in which entrepreneurs recognise a social problem and tailor their activities to create social value. Such entrepreneurs develop services, solutions or products to solve critical social issues and bring about social change. This social change could be related to environment conservation, animal rights protection or philanthropic activities for the underserved community. The motivating factor of social entrepreneurship is achieving social benefits. Working in a social enterprise means prioritising transformative social change while ensuring financial sustainability.

These organisations use ethical practices such as conscious consumerism and corporate social responsibility to facilitate success. Instead of making profits and earning wealth for the owners, social entrepreneurship aims to make the world a better place to live.

Non-profit organisations are the best social enterprise examples.

### **Related: Problem-Solving Skills: Definitions and Examples**

## 6. Environmental entrepreneurship

It is also known as ecopreneurship and green entrepreneurship. Profit generation and a concern for the environment drive the primary goal of such businesses. An ecopreneur adopts highly environmentally responsible business values and practices. They also try to replace the existing product or services with products that are environmentally safe to use. In short, environmental entrepreneurship prioritises the business impact on people and the environment besides profits.

Impact blogging, publishing an audiobook and creating SaaS software are a few examples of environmental entrepreneurship as they protect the environment by not cutting trees.

## 7. Technopreneurship

Technopreneurship is what you get on uniting technology with entrepreneurship. It is also known as technology entrepreneurship. A technopreneur merges entrepreneurial talent and skills with the technical prowess to develop a business that thrives on the intensive use of technology. Technopreneurs undertake calculated risks that have chances of earning profits. In short, these are entrepreneurs who have the ability to revolutionise the prevailing economic conditions and introduce breakthrough products for the customers. The foundation of the products and services of such a business is technology. Such a business prefers to employ creative and technology-savvy people who are passionate about bringing technological change.

## 8. Hustler entrepreneurship

A hustler entrepreneur is a self-starter motivated by their goals and aspirations to succeed in entrepreneurship. Such people start small and work hard to grow their business. Instead of using money or capital to achieve their business goals, they put in their best efforts. They never wait for opportunities to come because they create opportunities. Hustlers do not have a give-up attitude, have a big risk-taking appetite and are always ready to face challenges.

## 9. Innovative entrepreneurship

The foundation of innovative entrepreneurship is inventions and new ideas. These entrepreneurs can think about novel ways of doing business and have the potential to turn a new idea into a successful venture. They are business leaders and contribute significantly to the economy. Moreover, such companies strive to make



life better by providing products, solutions and services which other companies have not. Innovative entrepreneurship is ambitious and requires significant investment to turn a new idea into a breakthrough service or product.

#### 10. Imitative entrepreneurship

This entrepreneurship mimics or imitates existing business ideas and works hard to improve them. Such companies imitate already functioning products and services in the market, usually under a franchise agreement. Such entrepreneurs have no interest in innovation, though they are ready to work on and improve the existing processes. Imitative entrepreneurship works by adopting current technologies worldwide and modifying their existing technologies to suit the local conditions. Fast food companies and multinational conglomerate companies are the best examples of enterprises running on imitative entrepreneurship.

#### 11. Researcher entrepreneurship

Researchers are those who conduct in-depth research on the market and opportunities before launching their business. Such entrepreneurs believe that with the right set of information and preparation, they have a higher chance of achieving success in their entrepreneurial business. Rather than their instinct, they rely on facts, data and logic. Before launching their business, they require a detailed plan and in-depth report of the research findings to minimise the probability of failure.

#### 12. Cyberpreneurship

Cyberpreneurs or cyber entrepreneurs are people who leverage the benefits of information technology to do business. They come up with new ideas to provide products and services to customers via the internet. These people understand the digital age and remove the hassle of going to a physical store. Such entrepreneurship exists only online and is known as a virtual business.

Ecommerce stores and over-the-top (OTT) entertainment platforms fall in the category of cyberpreneurship.

### **Role of Entrepreneurs in Economic Development**

Everything you need to know about the role of entrepreneurs in economic development. Economic development essentially means a process of upward change whereby the real per capita income of a country increases over a period of time.

Entrepreneur plays a vital role in economic development. Entrepreneurs serve as the catalysts in the process of industrialization and economic growth.

Technical progress alone cannot lead to economic development, unless technological breakthroughs are put to economic use by entrepreneurs.

Some of the roles of entrepreneurs are:-

1. Capital Formation
2. Improvement in Per Capita Income
3. Generation of Employment
4. Balanced Regional Development
5. Improvement in Living Standards
6. Economic Independence
7. Backward and Forward Linkages
8. Inspire Others towards Entrepreneurship
9. Create Knowledge Spillovers



10. Augment the Number of Enterprises
11. Provide Diversity in Firms
12. Organising of Society's Productive Resources
13. Production of New Articles
14. Development of New Production Technique and a Few Others.

Economic development essentially means a process of upward change whereby the real per capita income of a country increases over a period of time. Entrepreneur plays a vital role in economic development. Entrepreneurs serve as the catalysts in the process of industrialization and economic growth. Technical progress alone cannot lead to economic development, unless technological breakthroughs are put to economic use by entrepreneurs.

It is the entrepreneur who organizes and puts to use capital, labour and technology. Accordingly, "development does not occur spontaneously as a natural consequence when economic conditions in some sense are right. A catalyst is needed and this requires entrepreneurial activity to a considerable extent, the diversity of activities that characterizes rich countries can be attributed to the supply of entrepreneurs."

The entrepreneur is the key to the creation of new enterprises that energize the economy and rejuvenate the established enterprises that make up the economic structure.

**Entrepreneurs initiate and sustain the process of economic development in the following ways:**

**1. Capital Formation:**

Entrepreneurs mobilize the idle savings of the public through the issues of industrial securities. Investment of public savings in industry results in productive utilization of national resources. Rate of capital formation increases which is essential for rapid economic growth. Thus, an entrepreneur is the creator of wealth.

**2. Improvement in Per Capita Income:**

Entrepreneurs locate and exploit opportunities. They convert the latent and idle resources like land, labour and capital into national income and wealth in the form of goods and services. They help to increase net national product and per capita income in the country, which are important yardsticks for measuring economic growth.

**3. Generation of Employment:**

Entrepreneurs generate employment both directly and indirectly. Directly, self-employment as an entrepreneur offers the best way for independent and honorable life. Indirectly, by setting up large and small scale business units they offer jobs to millions. Thus, entrepreneurship helps to reduce the unemployment problem in the country.

**4. Balanced Regional Development:**

Entrepreneurs in the public and private sectors help to remove regional disparities in economic development. They set up industries in backward areas to avail various concessions and subsidies offered by the central and state governments.

Public sector steel plants and private sector industries by Modis, Tatas, Birlas and others have put the hitherto unknown places on the international map.

**5. Improvement in Living Standards:**

Entrepreneurs set up industries which remove scarcity of essential commodities and introduce new products. Production of goods on mass scale and manufacture of handicrafts, etc., in the small scale sector help to improve the standards of life of a common man. These offer goods at lower costs and increase variety in consumption.

**6. Economic Independence:**



Entrepreneurship is essential for national self-reliance. Industrialists help to manufacture indigenous substitutes of hitherto imported products thereby reducing dependence on foreign countries. Businessmen also export goods and services on a large scale and thereby earn the scarce foreign exchange for the country.

Such import substitution and export promotion help to ensure the economic independence of the country without which political independence has little meaning.

#### **7. Backward and Forward Linkages:**

An entrepreneur initiates change which has a chain reaction. Setting up of an enterprise has several backward and forward linkages. For example- the establishment of a steel plant generates several ancillary units and expands the demand for iron ore, coal, etc.

These are backward linkages. By increasing the supply of steel, the plant facilitates the growth of machine building, tube making, utensil manufacturing and such other units.

Entrepreneurs create an atmosphere of enthusiasm and convey a sense of purpose. They give an organization its momentum. Entrepreneurial behavior is critical to the long term vitality of every economy. The practice of entrepreneurship is as important to established firms as it is to new ones.

#### **8. Inspire Others towards Entrepreneurship:**

The team created by an entrepreneur for his new venture often provides the opportunity for the employees-cum-teammates to have a first-hand experience of getting involved in an entrepreneurial venture. This often leads eventually for these employed to become entrepreneurs themselves after being inspired by their earlier experience of working for an entrepreneur. Thus, this process helps in forming a chain reaction of entrepreneurial activity which directly contributes to the health of the economy.

#### **Role # 9. Create Knowledge Spillovers:**

When a scientist, an engineer, or a knowledge worker (i.e. an economic agent with endowments of new economic knowledge) leaves an organization to create a new firm, knowledge acquired by her in the organization gets spilled over to the new firm. Hence, entrepreneurship serves as a mechanism by which knowledge spills over to a new firm in which it is commercialized. Naturally, the new firm gets benefited by the experience and knowledge gained by the founder in her erstwhile organization.

Knowledge is embodied in a worker and the new firm is created through the worker's effort to appropriate the value of his knowledge by way of innovative activity. Lucas (1988) established that knowledge spillovers are an important mechanism driving economic growth.

#### **Role # 10. Augment the Number of Enterprises:**

When new firms are created by entrepreneurs, the number of enterprises based upon new ideas/concepts/products in a region (say, a city, state, or country) increases. Not only does an increase in the number of firms enhance the competition for new ideas, but greater competition across firms also facilitates the entry of new firms specializing in a particular new product niche.

This is because the necessary complementary inputs are more likely available from small specialist niche firms than from large, vertically integrated producers (Jacobs, 1969). Glaeser et al. (1992) as well as Feldman and Audretsch (1999) found empirical evidence supporting the hypothesis that an increase in competition within a city, as measured by the number of enterprises, is accompanied by higher growth performance of that city.

#### **Role # 11. Provide Diversity in Firms:**

Entrepreneurial activity in a region often results into creation of a variety of firms in a region. These firms operate into diverse activities and it has been found that it is this diversity in firms which fosters economic development and growth rather than homogeneity. According to Jacobs (1969), it is the exchange of complementary knowledge across diverse firms and economic agents that yield an important return on new economic knowledge.

#### **12. Organising of Society's Productive Resources:**

The important role of entrepreneurship is the optimum uses of productive resources of the country for the benefits of the people. James Burna observes that an entrepreneur is the organiser of society's productive resources. While explaining the contribution of entrepreneurs Prof. Karvar writes, the services of an



entrepreneur are such which a paid manager cannot perform. In the absence of entrepreneurs, all the productive resources remain idle.

### **13. Production of New Articles:**

Entrepreneur performs important role in producing and presenting new products in the market. He innovates and identifies the possibility of producing new products on the basis of innovation.

### **14. Development of New Production Technique:**

Entrepreneur uses the new methods of production techniques, and brings in the market varieties of products at reasonable prices. He makes efforts to bring improvement in the present technology of production.

### **Importance of ethics and social responsibility in entrepreneurship**

Entrepreneurship is the process or steps followed in designing and managing or operating or running a small business.

Ethics means good behavior or conduct at work place or acceptable code of conduct. Social responsibility refers to how you relate with the public in a business setting. A combination of ethics and social responsibility is important because of the following:

1. It promotes professionalism in the way you handle customers
2. It helps maintain good standards in terms of quantity and quality
3. It builds trust between customers and the business
4. Promotes achieving of a common goals and maintaining customer network and relationships
5. Good ethics enhances high standards of customer service and expectations.

It generally promotes customer satisfaction builds trusts and gives brand to the business

### **Need of Ethics to An Entrepreneur**

The social dimensions of business ethics cannot be overlooked because many problems arise from the relationship of business to the boarder society. Ethical considerations are significant for managers due to the following reasons:

- For every individual job is the Centre of life. Unless job values are in harmony with the rest of life, he cannot be happy and healthy person.
- Modern society is an industrial society. Therefore, business value becomes the value of the society as a whole.
- An entrepreneur must take into moral and social consideration because these are the real motivating factors.
- When an organization fails to behave in accordance with the social expectations, it may lose not only its image and market share but it's very right to exist.
- The study of business ethics insulates high level of integrity to an entrepreneur.
- Ethical knowledge will help the entrepreneur in setting highly responsible tone for the organization in individual judgements and decisions whether ethical or not

### **Social Responsibility of an Entrepreneur Towards Different Sections of The Society**

Social Responsibility means eliminating corrupt, irresponsible or unethical behaviour which might harm to the community, its people and the environment

#### **1. Responsibility Towards Employees:**

- o Fair wages and salaries
- o Adequate Basic Facilities like safe drinking water, electricity, canteen, hygienic toilets.
- o Skill development programmes.
- o Good and safe working environment.



- o Retirement benefits and pension schemes
- o Collective bargaining o Insurance cover
- o Medical facilities

## 2. Responsibility Towards Customers:

- o Charge reasonable price for products or services.
- o Supply of right quality of goods in right quantity.
- o No use of manipulated or false advertisements. Avoid unfair selling practices.
- o Fair guarantee of product

3. Responsibility Towards Shareholders: o A fair return on investment. o Safety of invested capital. o Regular and complete information about the performance and progress of the company. o Regular Payment if dividend

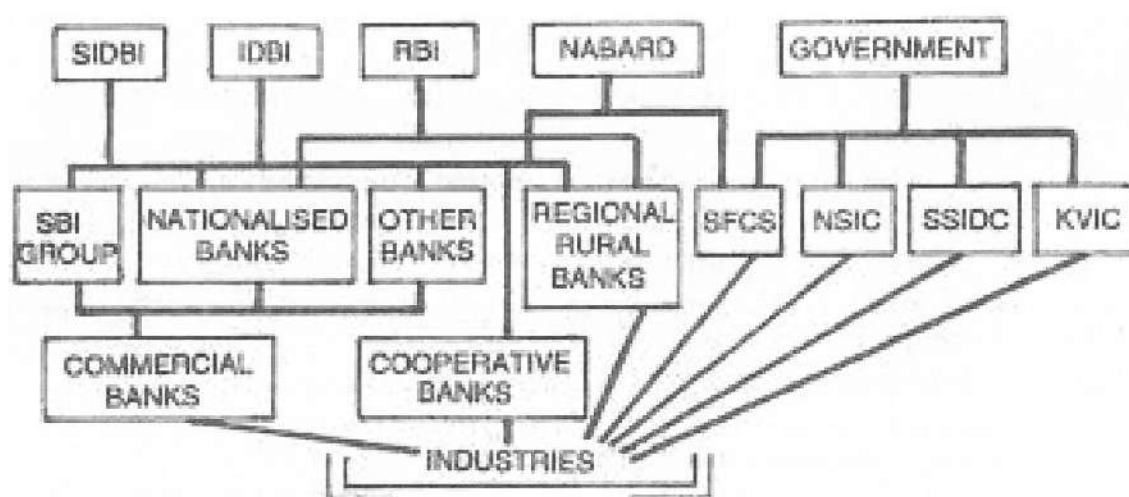
4. Responsibility Towards Suppliers, Creditors: o Maintain healthy and co-operative inter-business relationship between different businesses. o Provide accurate and relevant information to creditors. o Payment of price of materials on time. o Prompt payment of interest on borrowed funds. o Producing original documents for credit processing.

5. Responsibility Towards Public in General: o Help the weaker section of the society. o Creation of job opportunities. o Improvement in living standards. o Building of basic infrastructure like roads, sewerage. o Health and educational development schemes. o To make best use of society's resources for their welfare.

6. Responsibility towards Government: o Payment of corporate tax in correct amount with no manipulation of profit figures. o To avoid corrupting public servants by offering bribe. o To encourage fair trade practices. o To avoid monopoly practices. o To improve national income.

## Financial institutional support to entrepreneurs

Financial assistance to entrepreneurs is granted by commercial banks, State Financial Corporations, State Directorate of Industries, National Small Industries Corporation, state Small Industries Corporations, and - all-India - development banks. The details are given in below picture





## UNIT-II: CREATIVITY AND INNOVATION IN ENTREPRENEURSHIP

Meaning and concept of creativity - Nature and characteristics of creativity -Creativity Process- Factors affecting creativity - Meaning and Importance Innovation - Process -Distinguish the Creativity and Innovation.

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### Meaning and concept of creativity

Creativity and innovation are characteristics that people seek to develop to help them look at the world in new ways and form ideas to improve or add to it. They are active characteristics, meaning they have to be used deliberately in order to create something beneficial or authentic. Creativity serves to express an idea or concept, while innovation seeks to solve an issue

The definition of creativity is **the ability to come up with new and exciting ideas**. When Apple Computer comes up with a brand new product such as the iPod that no one has ever thought of before, this is an example of creativity. When a painter creates a beautiful work of art, this is an example of creativity.

### Nature of creativity? Is creativity born or trained? What are the basic attributes of inventors and creative researchers?

Creativity is the intellectual ability to make creations, inventions, and discoveries that brings novel relations, entities, and/or unexpected solutions into existence [Wang, 2009, 2013]. Creativity is a gifted ability of humans in thinking, inference, problem solving, and product development.

Creativity is inherited, an innate trait. But like anything else, it may be improved and fine tuned

✓ Creativity to the combination of strong memory, vivid imagination, lateral thinking, a personality approaching (yet not breaching) narcissistic and some form of technical training

✓ Creativity is the result of several factors, among them intelligence, spontaneity, consciousness, emotions, self-realization, will produce creative new things

Creativity is came from both inheritend and trained. Maternal environment also may be influence on creativity.

It has been conclusively proven that creativity is 80% genetic although not directly passed from parent to child, i. e. it depends on a combination of genes but that sequence is not directly transferred from your parents. Read thi s and other downloads from that site:

### Essential Elements of Creativity in Entrepreneurship

( <https://www.googlesir.com/elements-of-creativity-in-entrepreneurship/> )

Successful creativity in entrepreneurship is very essential in the present day. The cutthroat competition, scarcity of resources, the high cost of labour and production, and settlement of mutual disputes and success of the employees are such problems which can be settled through new facts, ideas methods and system which can be created by creativity.

### Following are the essential elements of creativity in entrepreneurship:

#### 1. Clear Objectives and Providing Autonomy

In earlier days, the role of the entrepreneurs was just to assign the work to the persons and members of their organization, without informing about the objectives. **But in the modern age**, the entrepreneur should not tell the objectives to them but should also explain them.



Besides, full freedom should also be provided to all the members and persons to achieve the objectives. It will facilitate the development of creativity in the organization.

## 2. To Encourage New Ideas

The entrepreneurship should develop such an environment to bring new ideas at each level and may encourage them. By doing so, all employees in the organization will get inspiration for deep thinking and will be encouraged to explore new ideas.

## 3. To Develop Pre-Awakening

Developing pre awakening is also an essential and important *element of creativity in entrepreneurship*. **By doing so**, the persons will work themselves and the managers will also get the work done from other persons.

## 4. Effective Arrangements for Communication

Effective communication arrangements are essential for the development of crea **The communication method** should be sweet and decent, regular And Atmosphere for communication should be favorable and it should be two-way communication. As a result, the free ideological exchange will be encouraged on the one side and on the other side, the way of finding new facts will also be discovered.

## 5. To Develop Good Atmosphere in Whole Organization

For the development of creativity in entrepreneurship, the development of a good atmosphere in the whole organization is essential. **For that**, the atmosphere of initiatives, pleasures and engagements and funds is required, so that all may feel happy as well as feel inspired for constructive and creative tendencies

## 6. Delegation of Powers

An entrepreneur cannot perform all works by himself.

So, the entrepreneur should delegate powers to his subordinates and may also entrust the responsibilities to them.

It will increase their managerial and decision-making abilities and they will fulfill a better role in the organization.

## 7. To Recognise Individuals in Organizations

Recognition of individuals is also an important element for creativity in entrepreneurship.

**The entrepreneur** should give due Recognition to the persons as well as the unions, formed for safeguarding their interests, according to the rules and may suitably give rewards for the creativity. By doing so, creativity will get encouragement



## 8. Open Deliberations and Encouragement

The entrepreneur should deliberate openly with other entrepreneurs on all issues **Besides**, he should encourage the exchange of views. By doing so, creativity in the entrepreneurs will get encouragement and their personality will also develop.

## 9. Recognition to the Proposals of Employees

The proposal or facts submitted by the employee should be given proper recognition to **develop creativity in the organization**. This will develop the feelings to do hard work and they will feel inspired to work more with hard labour.

## 10. To Bear Loss or Failure

It has been observed that the emerged ideas or suggested schemes may prove impracticable sometimes. It results in the loss of the organization.

But, in such conditions, entrepreneurs should bear such losses or failures, otherwise, the employees will feel disappointed. By doing so, the path of creativity will show success and it will be a great achievement.

## 11. To Show Impartial Attitude

The entrepreneur has to make various decisions regarding employees of the organization, like confirming the temporary employees, promotions, transfer from one unit to another, evolution of work and ability, etc. An entrepreneur should show an impartial attitude and make impartial decisions, based on facts. Creativity may be developed by using such unbiased attitudes.

## 12. To Give Sufficient Time to Employees

Sufficient time should be given to use and make additions to the creative abilities of the employees. **Not only that**, managers should be systematically encouraged.

## 13. Diversification of Thinking and Behaviour

The entrepreneurs should keep his thinking and behaviour diversified in various directions. By doing so, creativity will develop in all spheres of life.

## 14. To Develop Acceptance of Change

The entrepreneur should develop the concept of accepting the changes in his employees, to develop **creativity**. **For that**, the entrepreneur may make them aware of the latest changes occurring in the internal and external environment and may introduce their mental change, so that they may easily and conveniently accept the changes on their own. Not only that, but entrepreneurs may also give recognition to them.

## 15. Use of Suggestion Box in Institution

Suggestion boxes or books should be kept at a certain place in the institution so that suitable and practical suggestions of the employees may come at and they may be implemented on being found useful. It will



bring creativity to the entrepreneurship. It will inspire the employees to offer further creative suggestions that will be beneficial for the organization.

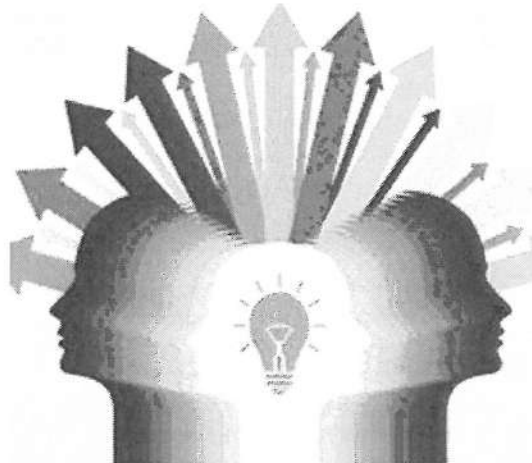
OR

### The Five Characteristics of Creativity

<https://medium.com/@DrRobertMuller/the-five-characteristics-of-creativity-a872a333fb48>

Creativity — a necessary prerequisite for success, or an over-rated concept that cannot be learnt? The debate rages on. However, in my work as an academic and in community-building, I have been fortunate enough to work with students and community activists who are truly gifted in terms of creativity. So, what characteristics do they have that make them stand out from the rest of the population? From my observations (although I have not tested these assertions), there are five key characteristics of creative people that they use to plan, construct, implement, and maintain whatever it is that they have chosen to do. These characteristics are outlined below.

**Flexibility:** This is a key characteristic because it involves a mindset that suggests that there may be more than a single answer or solution to any particular issue or problem. Flexible thinkers are not hemmed in by being overly-focused on one way of doing things and tend to be open to innovation. They also have the capacity to understand when something is not working and then to change to an alternative solution/approach.

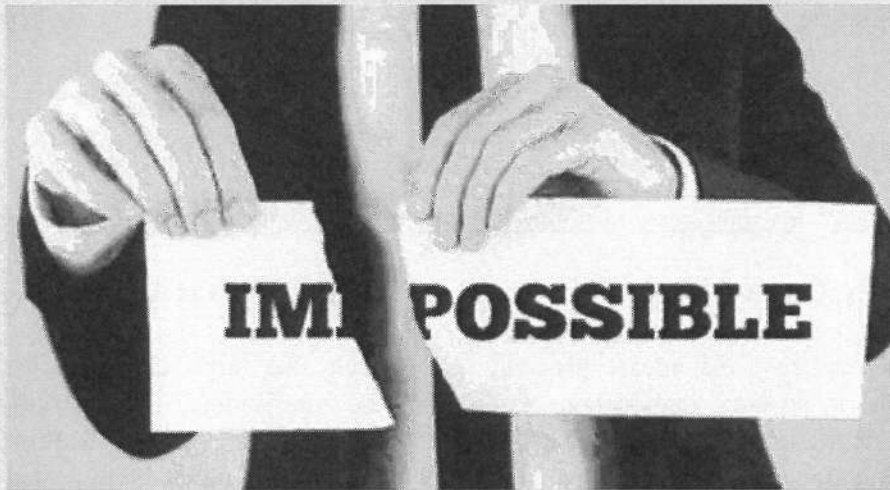


**A sense of intense curiosity:** Creative thinkers are fascinated with the world around them. They ask lots of questions, and tend to develop a very intense focus that takes them into almost a reverie as they try to discover how something works, or the detail of a beautiful structure, or anything else they set their mind on.





**Positive attitude:** A positive attitude is essential for thinking creatively as it is this positivity that spurs the mind on to seek detail, wonder, and, indeed, solutions. This is linked strongly to my previous point about intense curiosity. A person who thinks negatively tends to block out possibilities, and not look at the world around them with such detailed wonder.



**Strong motivation and determination:** This is where the hard work of the creative comes in. So, we can all have creative thoughts — but what use is creativity if it doesn't actually show itself to the world in an act of construction or creation? From creating software solutions for major problems, through to creating social capital through community building, or painting a work of art, creativity requires the follow-through that can only come from strong motivation and determination. Without this, creative ideas will only reside within the mind of the individual without having the opportunity to influence society and/or the community.





**Fearlessness:** This is an interesting characteristic because highly creative people tend to believe in the VALUE of the ideas they come up with. Remember, they are also flexible, so they are willing to change; however, they do not seem to be worried about whether their idea is right or wrong because they believe that their idea brings value to the field in which it resides, even if it may later be debunked. Whether you work in the realm of the arts, or in business, or in community capacity building, it is important to recognise the creative people in your team, but also to cultivate these characteristics, because creativity can be learned.

### What Is the Creative Process?

<https://www.masterclass.com/articles/how-to-improve-creativity#the-5-stages-of-the-creative-process>

✓ The creative process is the evolution of an idea into its final form through a progression of thoughts and actions. The creative process involves critical thinking and problem-solving skills. From songwriters to television producers, creative individuals generally go through five steps to bring their ideas to fruition—preparation, incubation, illumination, evaluation, and verification. These stages were first articulated by Graham Wallas, a social psychologist and co-founder of the London School of Economics who outlined the primary stages of the creative process in his 1926 book on creativity called *The Art of Thought*.

### The 5 Stages of the Creative Process

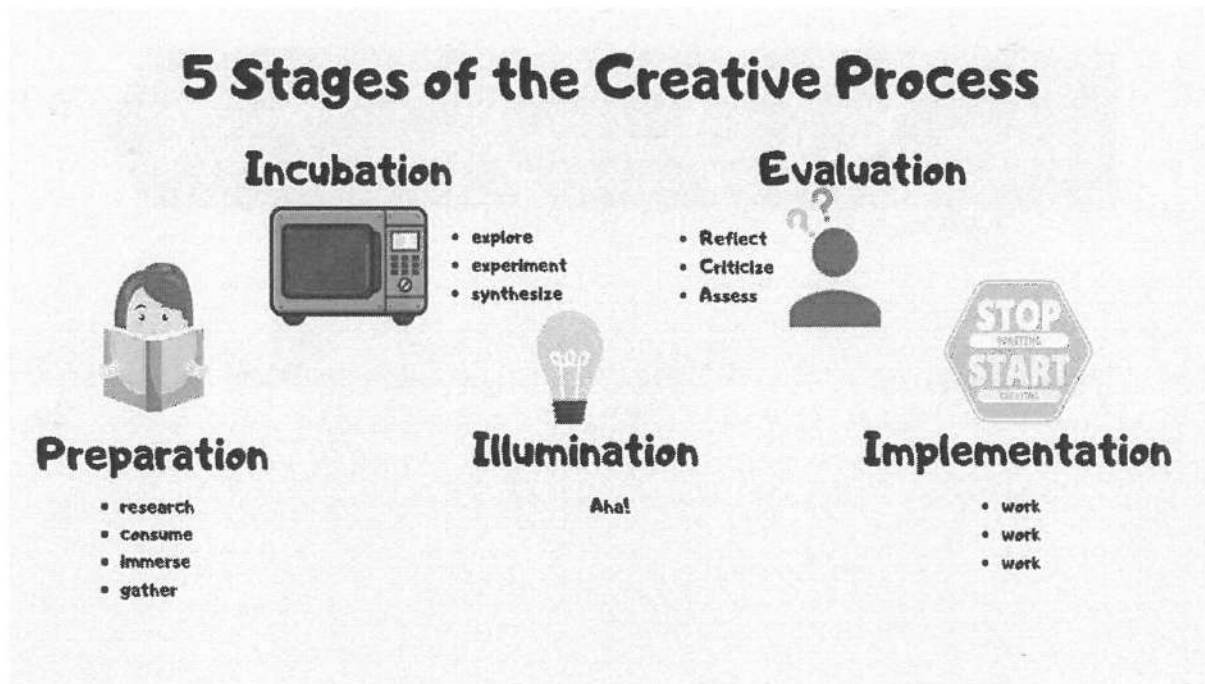
While all creative people apply unique methods and thought processes to their work, there are five stages that most creators subconsciously follow while pursuing their creative endeavors. The five stages of the creative process each flow logically into the next phase of the process. As you embark on your own creative process, unleash your mind and let your ideas grow through the five stages of creativity.

1. **Preparation stage:** As you begin the creative journey, the first stage involves prep work and idea generation. This is when you gather materials and conduct research that could spark an interesting idea. Brainstorm and let your mind wander, or write in a journal to foster divergent thinking; this will help you consider all possible approaches to building out your idea. In this first part of the process, your brain is using its memory bank to draw on knowledge and past experiences to generate original ideas.
2. **Incubation stage:** When you have finished actively thinking about your idea, the second stage is where you let it go. Part of creative thinking is taking a step away from your idea before you sit



down to flesh it out. You might work on another project or take a break from the creative process altogether—regardless, you are not consciously trying to work on your idea. Walking away from your idea might seem counterproductive, but it's an important stage of the process. During this time, your story or song or problem is incubating in the back of your mind.

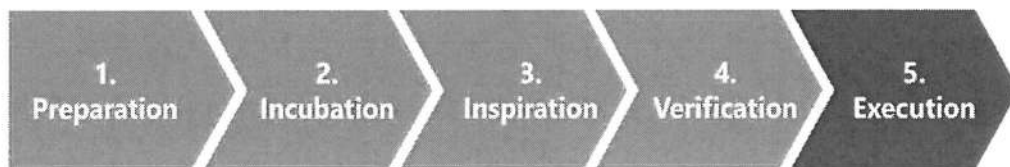
3. **Illumination stage:** Sometimes called the insight stage, illumination is when the “aha” moment happens. The light bulb clicks on as spontaneous new connections are formed and all of that material you’ve gathered comes together to present the solution to your problem. In this third stage, the answer to your creative quest strikes you. For example, you overcome writer’s block by figuring out the ending to your story. It can take you by surprise but after the incubation stage, an idea has emerged.
4. **Evaluation stage:** During this stage, you consider the validity of your idea and weigh it against alternatives. This is also a time of reflection when you look back at your initial concept or problem to see if your solution aligns with your initial vision. Business professionals might do market research to test the viability of the idea. During this phase, you might go back to the drawing board or you might forge on, confident in what you’ve come up with.
5. **Verification stage:** This is the final stage of the creative process. It’s when the hard work happens. Your creative product might be a physical object, an advertising campaign, a song, a novel, an architectural design—any item or object that you set out to create, propelled by that initial idea that popped into your head. Now, you finalize your design, bring your idea to life, and share it with the world.



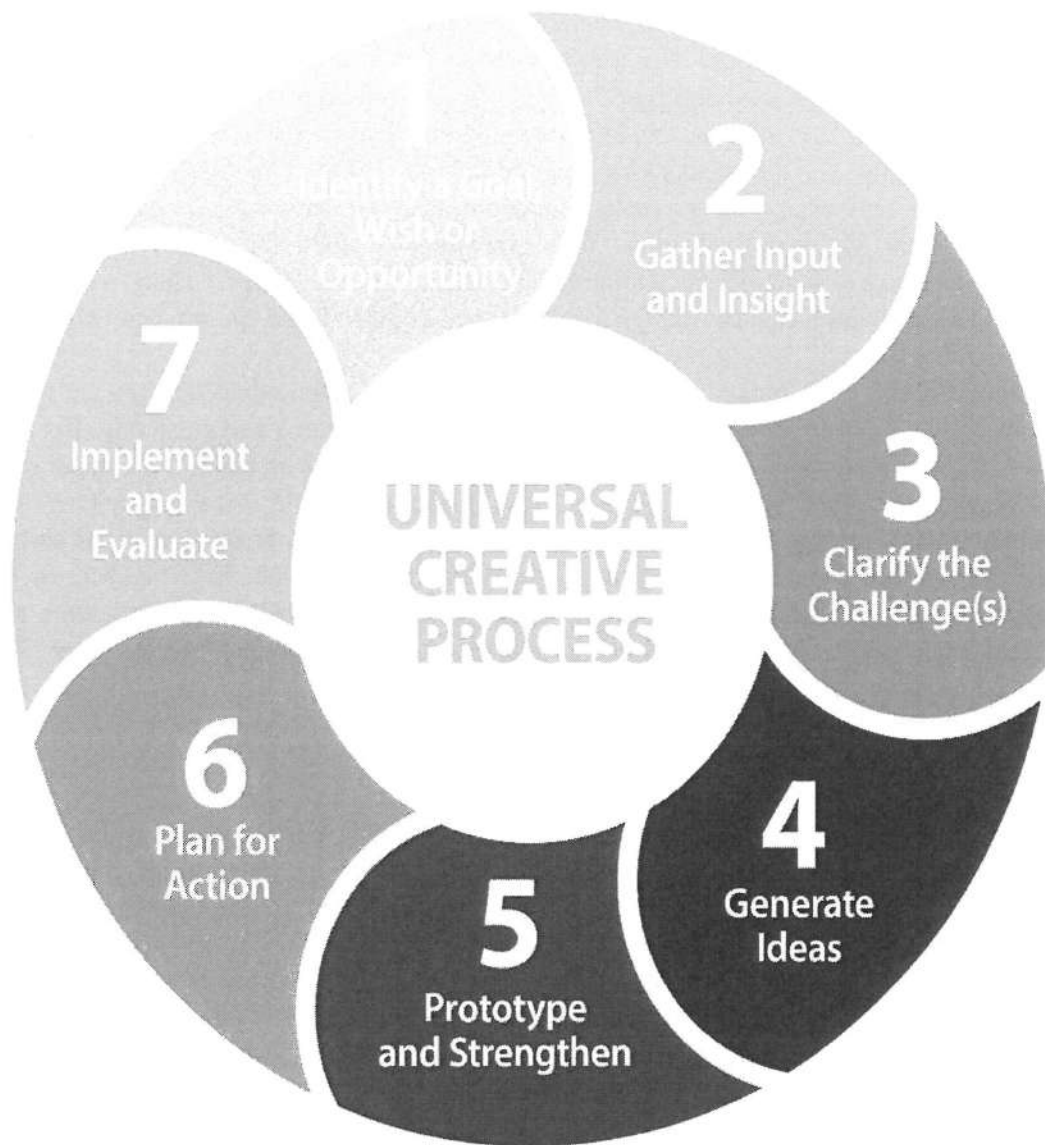




### Creative Process: The 5 Stages







### **Factors influencing creativity and innovation**

<https://www.linkedin.com/pulse/factors-influencing-creativity-innovation-meenakshisankar-m>

I was listening to a podcast episode of StarTalk recently. It was a *StarTalk Live!* edition from the Fun Fun Fun Fest in Austin, TX last year. It featured a panel discussion hosted by Bill Nye on creativity & innovation and the cognitive science behind it. The panelists included Dr. Roberta Ness and Dr. Art Markman, professors in the University of Texas. They offered the following key factors that contribute towards somebody being more creative and innovative. Here is what I heard (paraphrased) and my thoughts and recommendations based on those factors -

1. **Knowing a Lot** - "Not just in the narrow space in which they do their work, more creative people generally seem to possess a breadth of knowledge that falls a bit outside of their core area of work." Continuous learning is an underlying aspect of showing more creativity. My recommendation - Read a lot of books, especially on diverse subjects. Engage with people more, write your own points of view as a blog post when possible, and start conversations with others through comments. Also, listen to more podcasts! ;-)



2. **Recombinations** - "Lots of creativity involves recombinations of things we know with the influx of new data and new information. The classic example is the classic scientific method in which scientists conduct their experiments based on a hypothesis and expect a particular result. When they get a different result, they step back and try to modify their hypothesis to fit the new data observed." As you can see, this is a direct extension from the first point. The more things you know, the more possibilities of combining with any new information that you come across, and hence leading to more innovations. My recommendation - Keep experimenting and trying out new things, that is the best way to discover new ideas/possibilities/data which you can interpret along with things you already know and thus create new things. Use tools such as **SCAMPER** to form new and unexpected connections.
3. **Frame breaking** - "The frame is all of your expectations and assumptions that you are so used to, such that whenever new information comes, you interpret it only in a particular way. This prevents us from making some connections or interpretations. All of us have an enormous number of frames working within us at any given point of time. They are so innate to us that we don't even recognize them consciously most of the time. Genius scientists almost always broke frames and that is how they came up with ground-breaking ideas." It is better called as frame shattering, because you are doing more than just breaking a few assumptions, you are re-looking at something from a totally different angle or perspective and forming your novel ideas. Examples are Darwin's theory of evolution and Rutherford's model of the atom, both ideas which revolutionized the previous thinking in the respective domains. My recommendation - Start by questioning some of your core beliefs, consciously research about and argue in favor of an alternate view point that you have never considered earlier, and develop the quality of empathy.
4. **Adequacy of Time** - "Epiphanies may come suddenly, but they don't come immediately. They are the result of thinking about the problem for a longer period of time on a sustained basis. Einstein published four important papers in 1905 which completely radicalized the field of physics forever, and hence it is called as his 'miracle year'. But he was thinking about some of those concepts for more than a decade, and they took shape over the course of all those years." We need to be able to give time for creativity. The flower of creativity blooms colorfully but requires patience and watering. My recommendation - Celebrate the process as much as the outcomes. When processes are effective and right, outcomes will certainly follow.
5. **Community vs Individual thinking** - "When you think alone by yourself, you are prone to developing a lot of divergent views. But when you come together as a group and start thinking, you will develop a few convergent views. Both are essential for the creative process." There is an increasing tendency to rely more on collaboration as a tool of innovation, which sometimes limits the number of ideas since there is always an attempt towards consensus and agreement. We need to make sure we give space and time for individual thoughts to grow before collaboration happens. My recommendation - Switch off and log off periodically. Give yourself some "you time" doing things you like to do.
6. **Failure Tolerance** - "We need to make people more comfortable with error. What our educational system teaches us best is to minimize error, but perhaps that is not always such a good thing. We don't want to eliminate the fear of failure. But we should develop an attitude where we accept legitimate failures in the pursuit of success." The one best line from the show for me was this - "The attitude we want is that we punish negligence, but not failure." Wow! My recommendation - This is something we develop towards others rather than about ourselves. We should be able to understand and forgive failures in others, and give second chances. This is more like a 'pay it forward' thing, the more we develop a tolerance for failure in others, we will be forgiven for our attempts and failures and will eventually be allowed to succeed in becoming more creative.

## Importance Innovation process

<https://www.viima.com/blog/importance-of-innovation>



## *Competitive advantage*

Competitive advantage means the necessary advancements in capabilities that provide an edge in comparison to competitors of the industry. What these are exactly, depends on your business model and the industry you operate in.

As already mentioned, for organizations the ability to get ahead of the competition is one of the most significant reasons to innovate. Successful, innovative businesses are able to keep their operations, services and products relevant to their customers' needs and changing market conditions.

Innovation increases your chances to react to changes and discover new opportunities. It can also help foster competitive advantage as it allows you to build better products and services for your customers.

## *Maximize ROI*

Increased competitive advantage and continuous innovation often has a direct impact on performance and profitability.

According to Global Innovation 1000, there's **a clear difference in both revenue (11%) and EBITDA (22%) growth in favor of the more innovative organizations. These numbers show that innovative companies not only grow faster but are more profitable than the rest.**

Although measuring the ROI of innovation might be challenging especially in the beginning or when talking about disruptive innovations, investing in innovation is often a surer way to improve your numbers than not innovating at all.

## *Increased productivity*

Economic growth is driven by innovation and technological improvements, which reduce the costs of production and enable higher output. If we look at this from the perspective of an organization, different automation solutions decrease manual, repetitive work and release time for more important, value-creating tasks.

Improved productivity and efficiency makes work more meaningful as less time needs to be spent on low impact tasks. The more time you're able to spend on tasks that have a direct impact on your business, such as improving processes, solving problems or having conversations with your customers, the more likely you're able to actually reduce costs, increase turnover and provide your customers with solutions that truly benefit them.

## *Positive impact on company culture*

Last but not least, innovation also has a positive impact on company culture as it increases the ability to acquire, create and make the best use of competencies, skills and knowledge.

Innovation practices can help build a culture of continuous learning, growth and personal development. This type of innovative environment can again motivate people to constantly improve the way they and their team work.



**If you look at history, innovation doesn't come just from giving people incentives; it comes from creating environments where their ideas can connect. – By Steven Johnson**

When the entire organization is supportive and provides the right tools for the employees to succeed in their jobs, it eventually has a positive effect on how people perceive their jobs.

## Conclusion

Generally speaking, the main purpose of innovation is to improve people's lives. When it comes to managing a business, innovation is the key for making any kind of progress.

Although your innovation activities aren't necessarily powerful enough to save the world, you should focus on improving the things you can affect.

Small improvements eventually lead to bigger and better ideas that may one day become revolutionary. In the meantime, however, you're responsible for finding ways to make improvements in your own sphere of influence.

Often, getting started is the hardest part as there are many ways to approach innovation. Our suggestion is to simultaneously work on developing your personal skills and business related aspects. You should, however, start small and pick your focus as it's impossible to achieve everything at once.

Innovations process:

<https://www.cleverism.com/innovation-process-definition-models-tips/>

Innovation refers to the introduction of a new good or a new quality of a good, method of production, market, source of supply, and/or organization in an industry. It also refers to improving on an existing concept or idea using a step-wise process to create a commercially viable product.

Innovation is stereotypically viewed to be the wheelhouse of small and start-up companies since they tend to be very dynamic, but as we shall see, it is also a vital and viable aspect in big companies.

The most fulfilling thing about an innovation is being able to actualize an idea into a successful concept. To do this, you need to go through a long and complex process. For you to succeed you must understand the process well and must have the support needed; this is what differentiates a successful innovation process from an unsuccessful innovation process.





- **Solving problems:** Most ideas are actually derived from attempts to solve existing problems. As such, when you encourage innovation, you are opening doors for solutions to problems both within and outside your company. If your business provides services, you might realize that your customer do not have an avenue to share their opinions, complaints, and compliments. The only avenue available could be the physical office. So, to solve the problem, you could decide to operate a virtual office where customers' needs can be attended to within a short time. The customers will be happy and as a result, your sales will go higher.
- **Adapting to change:** This is especially evident in the technological world where there are rapid changes defining the business. Change is inevitable and innovation is the method to not only keep your business afloat, but also ensure that it remains relevant and profitable. With the rise in mobile phones, traditional telephone had to find ways to remain relevant. Same case with your business, when you develop an innovation culture, you remain relevant at all times.
- **Maximizing on globalization:** With markets all over the world becoming more interlinked, greater opportunities are emerging in these new markets and with that, new needs and challenges. For instance, China and India are estimated to be the leading markets, and Africa is predicted to be the next "hot spot". Therefore, if your company hopes to tap into this market share, innovation is a must to enable you to capitalize on the opportunities opening up.
- **Facing up the competition:** The corporate world is always very competitive, and with many new companies coming up, the top position in the industry is no longer a reserve of a few. To retain or establish your company's cutting edge, you can compete strategically by having a dynamic business that is able to make strategic and innovative moves and thus cut above the rest.
- **Evolving workplace dynamics:** The demographics in the work place are constantly changing. With the new generation that has entered the market place; new trends are also coming up. Innovation is therefore critical to ensure the smooth running of the company.



- **Customers' changing tastes and preferences:** The current customer has a great variety of products and services available to him and is well informed of his choices than before. The company must therefore keep itself abreast with these evolving tastes and also forge new ways of satisfying the customer.

## Risks of the Innovation Process and how to overcome them

The innovation process is lauded for its many benefits that have defined the corporate and social cultural scene since the era of industrialization. However, it does not lack its set of challenges and risk as discussed below.

- **Technological failure of the innovation** – The biggest risk any company takes in the innovation process is whether or not the new product or idea will work once it is launched in the real world or whether it remains to be a white elephant. To manage this risk, the company may carry out trials on a small scale to test its effectiveness. Once this is done and observations made on, the necessary adjustments may be made accordingly to avert any huge losses once the product is mass produced.
- **Financial strain** – Often, the innovation process is faced with the challenge of draining out the company resources as returns are usually long-term as opposed to immediate. This may lead to abortion of the product or idea once it is perceived to be non-profitable. However, you should look at the projected returns and consider whether or not the innovation aligns with its long-term goals.
- **Market failure** – For innovations which involve the introduction of new products or technology to the market, it is imperative that the product meets the needs, tastes and preferences of the consumers. Failure to do this would mean that demand would be low and therefore the innovation not viable commercially. To avoid this, you should undertake extensive and in-depth market research before committing limited resources to its development and production.
- **Redundancy** – With trends in the market constantly changing and many innovations emerging, it is possible that a profitable innovation today may be redundant in the near future. To counter this, there must be constant research on how to improve the existing systems and a keen observance of global trends and the factors influencing them in order to stay a step ahead.
- **Lack of capacity for implementation** – This is especially a challenge for start-ups where they lack the structural and financial capacity to roll out the innovation. You then risk remaining a pipe dream. So, you may choose to look for partners who will assist in your area of lack and thus overcome the challenge. It is important that the partner also shares in the vision of the innovation to avoid conflicting interests in future.
- **Organizational risks** – This refers to the risks that are faced in the structure and running of the business once the innovation is introduced. For instance, the company may revert to focusing all resources and time towards innovation at the expense of its daily activities. Proper planning and allocation of resources has to be ensured by the leadership to ensure this does not happen.
- **Unprecedented risks** – These are risks that would not have been foreseen and may be influenced by factors outside the company's control. They may involve changes in policies or political instability whose ripple effect spills over hindering the effectiveness of the innovation. It is important for the business to keep a contingency plan to buffer it against such unseen events.

## How innovative companies benefit from innovations

### Experience

Innovative companies have the advantage of experience in innovating a product. Since they understand the process so well, they do not have to always go through many trial and errors. The



fact that they have repeated the process several times sets them apart from other companies who do not have an innovative culture.

### **Creativity**

Innovative companies attract innovative employees. Since the company maintains an innovative culture, the employees understand that they are responsible for innovations and implementation of new products. Moreover, every stage of the innovation process is characterized by a large number of experienced personnel who ensure that the process goes on smoothly.

The experienced professionals ensure the conceptualization, design and implementation of the idea is completed. Besides, they make sure the product is desirable to customers.

### **Leadership**

As a matter of fact, innovative companies are industry leaders. They are always ahead of the others in the market. Even if the others try to catch up, they can't. This is because they only copy what the industry leaders do.

By the time they implement the idea fully, the innovative company already has a new product. Therefore, innovative companies set the pace for the industry.

### **Name recognition**

Companies with an innovation culture are known in their industry. Therefore, they do not have a huge budget on marketing and branding. As a fact, customers look forward to new products from the company.

## **INNOVATION PROCESS**

The innovation process is a structure strategy that ensures that the innovation team idealizes an innovation and runs with it until it is successfully implemented. However, the way you understand the innovation process greatly influences the way you establish it.

In this section, we shall discuss why it is good to use a structured innovation process. We shall also demystify the innovation process by explaining each step that needs to be followed until the innovation is implemented.

We will so look at how your understanding of the process affects the outcome. Besides, I will also highlight some conditions that disrupt the innovation process.

Have you ever heard that quitters do not win and winners do not quit? A structured innovation model will help you face every challenge head on and to take the innovation seriously. It gives you a strategy of how to tackle every step along the way.

Without a structure, the innovation process can seem complex, big and unachievable. However when you use structure, you simplify the process. Benefits of the structure include;

- **Creates urgency:** Innovations are never urgent in nature: they are thought of as something to be implemented in the long run. You can spend one year talking about an innovative idea and by the end of the year; you have nothing to show for it. This is because immediate matters arise every now and then and you keep postponing the implementation of an innovation. Initially, you do not need a lot of time to plan for the innovation. So, you can set apart an afternoon for an innovation meeting every week. With time, you will see some progress and the innovation will not interrupt other processes. Besides, it will not be forgotten.



- **Increases efficiency and effectiveness:** All leading companies embrace innovation as their core culture. Innovation can be a one time or a continuous process. By relying on a structured innovation process, you increase your efficiency and the outcomes of your innovation are more likely to be adopted in the market. This separates you from other companies who do not take innovations seriously.
- **Increases performance:** Since the innovation process follows a step by step model, it gives you an opportunity to improve on your weak areas. For example, if you are good at implementing ideas but poor at analysis, then you have to make sure you improve on your analytical skills. Therefore, structure enables you to effectively apply all aspects of the process. As a result, the innovation process yields positive outcome for you.
- **Incentives and rewards:** You need a team of participants to carry out a successful innovation process. Note that not all the ideas proposed will be successful; some will fail terribly. However, others will be successful. The employees taking part in the innovation process need to be appreciated for their efforts. Besides, they need to learn lessons from failed processes. A structure identifies failures and the mistakes that lead to the failure. Besides, it makes it easy to reward participants who perform exemplary well. The rewards and lessons learnt act as motivation tools for an innovation culture.

## Different understanding on innovation and their consequences on the innovation process

- **If the innovation process is viewed as a process where only specialists participate, then there will be very little involvement from all the employees.** Some employees will keep off since they do not feel like they are specialists.
- **Small companies view innovation as a process for the big companies only.** This is because they conceptualize the innovation process as a complicated process which they lack the capacity to handle. Innovation can involve small and big changes so the small businesses miss out on market and technical opportunities which they could have enjoyed had they involved themselves in innovation. If you have a small business that produces books, you can add a section for dates at the top of every page. It will not cost you much but it will draw people to your books.
- **Innovations that are entirely targeted miss out on opportunities for new customers.** For example, supermarkets could give awards to people with the highest loyalty points to the end of the year. The incentive might not attract more customers if it is only focused on customers who acquired loyalty cards a month before the service was introduced. Customers who acquire the cards later will not feel valued. As a result, they might not feel compelled to acquire the cards.
- **Another misunderstanding is looking at the innovation process as a linear process.** A linear process relies on either technology or market trends as sources of innovation. As a result, a lot of money is spent on research and development and other sources of innovations are ignored. The customer, suppliers, public, and employees are ignored as sources of innovation. The innovation is therefore not a representation of the needs of the customers.
- **Companies look at innovations as breakthroughs and fail to think about incremental innovation.** A good example is what happened concerning electric light using the Edison design. The design of the bulb did not change for 16 years after it was created. When a product and process improvement took place, the price of the bulb was reduced by about 80%.
- **Often times, the innovation process is looked at as an independent process separate from the other processes in the organization.** This is not right as all processes in an organization work together to support each other. Besides, the other processes in the organization. This is not right as all process in an organization work together to support each other. Besides, some organizations look at the process of innovation differently from the product being produced. This is a misunderstanding as the process and product relate to each other.



Innovation involves some players and set rules. The two make up the rules of the game; they can therefore influence the conditions and space of the innovation.

If anything happens that is capable of dislocating the framework and the rules of the game, it leads to a discontinuous innovation. It is a shift in the basic conditions (technology, market, regulatory social etc.) when some innovation conditions are discontinued.

## TIPS FOR A SUCCESSFUL INNOVATION PROCESS

While the innovation process has many desirable benefits for companies seeking to remain above the rest, successfully integrating innovation into the business and reaping the benefits is no easy task.

However, you will find listed below tips on how to make the innovation process work for you and your company.

- **Create an innovation management space:** This would mean putting in place systems and structures that would not only support innovation but also evaluate the innovation process. As such, it would translate to creating the space functionality by setting aside time and resources for innovation. Where the company is large and too rigid in operation to diversify, a separate department that focuses entirely on innovation is set up.
- **Sharing the idea:** To foster an innovation culture, you must take the initiative to communicate the idea to the rest of the employees. The innovation process will only be realized once everyone is aware of what they are expected to bring to the table, and they, in turn, share similar goals and objectives as the management.
- **Removing the red tape:** Some company policies stifle innovation and progress. It is therefore of paramount importance that you identify these and remove them to enhance efficiency. More specifically, any bottlenecks in the flow of feedback between the management and employees should be dealt with and replaced with more open-door policies.
- **Creative thinking:** Innovation always starts with thinking against the norm – challenging the existing rules and set systems. This is the wheelhouse for most start-up companies as they tend to be dynamic and versatile since they're faced with a myriad of challenges. It is however more challenging for larger corporations that have well established and proven systems. Both types of entities must nurture this vital component in their operations, the former as a means for survival, and the latter to ensure they remain relevant.
- **Teamwork:** Cohesion and concerted efforts towards innovation will ensure the process takes place with fewer hiccups. Ensure that the leadership and the rest of the staff work together in order to move the company forward. It is also critical that the potential of each of the employees is known so as to ensure their strengths and weaknesses are pitted against those of their teammates to bring about efficiency and maximum production.
- **Leading from the front:** The leader must set an example for the rest of the team to follow. Once he or she works creatively and is innovative, it will be easy to motivate the rest to do the same.
- **Hold people responsible:** You will also need to task people to be innovative and once you do so, ensure that they follow through and have the freedom and power to implement their ideas. This will encourage the staff in their work as they can see the results of their efforts.



- **Ample working conditions:** Employees whose welfare is well catered for are more likely to be creative and more motivated to work. Therefore, it is crucial that they are not overworked and their workplace is comfortable.
- **Rewarding performance:** Employee's efforts at innovation and creativity should not go unnoticed and unrewarded. Those who prove themselves to be an asset to the company should be given more responsibility and rewarded accordingly.
- **Encourage collaboration:** Due to the diversity often found in the workplace, the company can take advantage of this by teaming up people with certain skills sets and personalities and even have teams competing in bringing in new ideas.

## CONCLUSION

An innovation culture is a strategy towards becoming a market leader. A company that has an innovation culture enjoys larger profit margins and is an authority in its area of industry. Though there are risks involved with the innovation process, the benefits are more. You should ensure you keep a close contact with the trends in the market to avoid creating a product that will be rejected.

Again, involve all stakeholders in the innovation process; they all have different knowledge and experience that will positively influence the process. The success of any innovation is when the product or service is accepted in the market.

### What is creativity and innovation?

Creativity is when people use their imagination to create new ideas, solve problems and think of possibilities that no one else has thought of before. The scope of creativity is limited only by one's ability to think outside the norm. The nature of creativity means that an idea's creation is unique and original to the creative thinker. Creativity is not a genetic trait, but something that a person develops as they continue to learn and grow and use their imagination for various forms of expression. Creativity has no inherent value unless a person manifests it into reality.

Innovation is the process of taking creative ideas and exploiting their benefit for commercial and financial success. An innovation is the creation of an innovator. Since innovation is the application of creative ideas, it's innately connected to creativity and they both work in tandem with one another. An innovation can be a physical object and a concept to improve or create a new process. People innovate to solve a problem or make society functionally more convenient.



### **UNIT –III: ENTREPRENEURSHIP DEVELOPMENT PROGRAMMES**

Designing Appropriate Training Programme to inculcate Entrepreneurial Spirit -Training for Entrepreneurs, Entrepreneurship Development Programme (EDP) – Need and objectives of EDP's -Phases and evolution on EDP's existing and new Entrepreneurs.

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<https://www.toppers4u.com/2021/04/entrepreneurial-development-programme.html>

#### **Entrepreneurship Development Programme (EDP)**

Introduction: EDP refers to a programme which is formulated to assist the individuals in reinforcing their entrepreneurial motives, and attaining competencies and skills which is essential for performing an entrepreneurial role successfully.

**Meaning and Definition of (EDP:** According to N. P. Singh :

"EDP is designed to help an individual in strengthening his entrepreneurial motive and in acquiring skills and capabilities necessary for playing his entrepreneurial role effectively. is necessary to promote this understanding of motives and their impact on entrepreneurial values and behavior for this purpose".

EDP can also be defined as a pre-defined process that recognizes, inculcates, designs and refines the skills and proficiencies of an individual to establish his own enterprise. In recent times, EDP has become a professional task which extensively encourages the development of funded and private businesses. The programme is meant to grow entrepreneurial aptitudes among people.

#### **Objectives of EDP :**

1. To make people learn compliance with law.
2. To develop and fortify entrepreneurial quality, i.e., motivation or need for achievement.
3. To develop small and medium scale enterprises in order to generate employment and widen the scope of industrial ownership.
4. To industrialize rural and backward sections of the society.
5. To understand the merits and demerits of becoming an entrepreneur.
6. To investigate the environmental set-up relating to small industries and small businesses.
7. To design project for manufacturing a product.
8. To increase the supply of entrepreneurs for quick industrial development.
9. To prepare individuals to accept the uncertainty involved in running a business.
10. To develop managerial skills among small entrepreneurs for improving the performance of small-scale industries.
11. To offer profitable employment opportunities to educated young men and women.
12. To expand the sources of entrepreneurship.

#### **Phases of Entrepreneurial Development Programme (EDP) :**

All the EDPs mainly consist of three phases, which are illustrated as below:

##### 1) Pre-Training Phase :

This step can be considered as the introductory phase in which the entrepreneurship development programmes are launched. A wide spectrum of activities are performed in this phase are described below :



## Phase of EDP

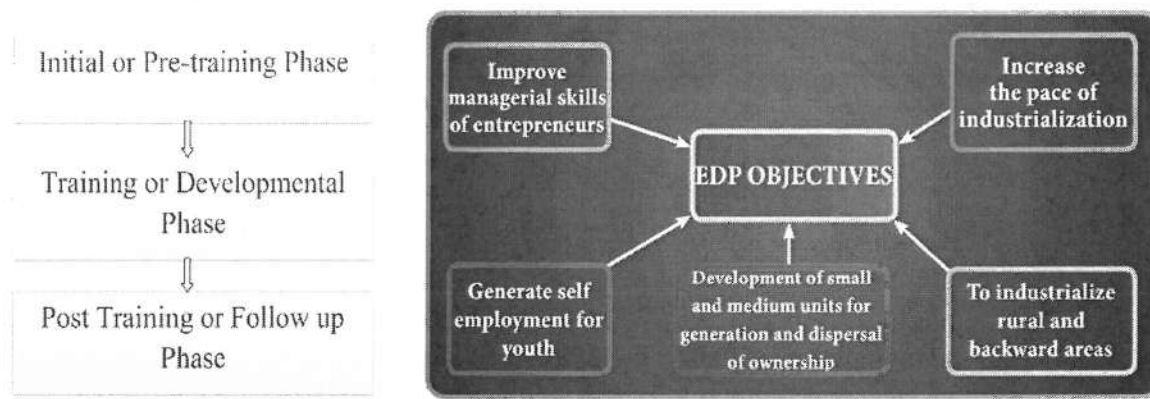


Figure 13.5 Objective of Entrepreneurial Development Programmes (EDP)

- i) Identification of suitable location where the operations can be initiated like a district.
- ii) Selection of an individual as a course coordinator or project leader to coordinate the EDP activities
- iii) Organisation of basic infrastructural facilities related to the programme.
- iv) Conducting the environmental scanning or industrial survey in order to look for better business opportunities.
- v) Developing various plans associated with the programme, like :
  - a) Promotional activities by using electronic or print media, posters, leaflets, etc.
  - b) Contacting business experts, different agencies, NGOs that can become a part of the programme, directly or indirectly.
  - c) Printing the application forms and availing them in different locations with the instructions.
  - d) Establishing selection committee for screening of candidates.
  - e) Preparing budget and getting it approved from the management and arranging other activities which are related to the programme.
  - f) Arranging and deciding the need-based elements in the syllabus of training programme and to contact guest faculties for the training session.
- vi) Looking for the assistance of various agencies such as DICs, banks, SISI, NSIC, DM and so on.
- vii) Conducting industrial motivational campaigns to increase the number of applications.

### 2) Training Phase :

The main function of any EDP is to impart training to future entrepreneurs and guiding them for establishing the enterprise. The normal duration of the entrepreneurship development programme is 4-6 weeks and it is usually a full time course. The objectives, training inputs and the centre of focus are explained in the programme design.

Commonly, it is considered that the trainees do not have enough information about the change because of which new programme is prepared. Each trainee should appraise himself at the termination of the training programme to have a clear view about his/her future endeavours.



Training Phase - Programme Design		
Objectives	Focus	Inputs
Promoting and sustaining the skills of entrepreneurship and building up the confidence.	Entrepreneur.	Behavioral inputs.
Helping in establishing the new enterprise through decision-making.	Enterprise establishment Creating enterprise.	Business opportunity guidance, information and project planning inputs, technical inputs. Guiding for enabling business opportunities. information and project planning and technical opinions.
Successful and profitable operation of enterprise. Industrial exposure Performing profitable and successful operations, exposure various industrial knowledge.	Enterprise management, first-hand knowledge of factory layout, business sites, etc. Information related to factory layout, plant location, organisation management and so on.	Management inputs, plant visit/in-plant training Management suggestions industrial visit or training.

### 3) Post-Training Phase:

This phase is also referred as the phase of follow-up assistance. In this phase, the candidates who have completed their programme successfully are provided post-training assistance. This phase is very important as after the completion of training programme, most of the entrepreneurs face a lot of hardship in the business plan implementation. Thus, with the help of various counselling sessions, the training organisations try to extend their support to trainees. Members like State Financial Corporation, commercial banks, training institutions and District Industries Centre constituted all together to assist the entrepreneurs on the basis of mentioned goals :

- To assist trainees in a meaningful manner so that trainees can realize their business plan.
- To analyse the development made by trainees in the project implementation.
- To evaluate the post-training approach.
- To provide escort services to the trainees with the help of various promotional and financial institutions.

Commonly, these follow-up action meetings are conducted after every three years of training completion and the tools used for the follow-up are :

- Postal questionnaires.
- Telephonic follow-up.
- Individual contact by the trainer.
- Team meetings.



A number of government and private institutions are providing assistance in India to entrepreneurs. Some of them are listed below :

- Small Industries Development Organisation (SIDO),
- Commercial Banks,
- National Alliance of Young Entrepreneurs (NAYE),
- National Institute for Entrepreneurship and small Business Development (NIESBUD),
- Entrepreneurship Development Institute of India (EDI),
- India Investment Centre (LIC),
- Small-scale industrial Development Bank Of India (SIDBI), and
- Technical Consultancy Organisation (TCO).

### **Importance of Entrepreneurial Development Programme (EDP) :**

#### 1) Formation of Employment Opportunities:

Entrepreneurial development programmes generate employment opportunities in the developing and under-developed countries. It assists and encourages individuals to establish their own business and enable them to become self-employed. By setting-up. several business enterprises, EDP also creates abundant job opportunities for other people.

#### 2) Provides Adequate Capital :

A large amount of capital is required to set-up a business enterprise. This financial assistance is provided by various EDP agencies. EDPs instruct the development banks such as ICICI, IDBI, IFCI, SIDCs, etc., to take initiative in promoting entrepreneurship.

#### 3) Proper Utilization of Local Resources :

New entrepreneurs utilize the available local resources in the most effective way. This utilization of resources plays an important role in the development of a particular area or region at minimum cost. EDPs .guide, educate and teach the entrepreneurs to exploit the local resources efficiently.

#### 4) Increased Per Capital Income:

Entrepreneurs have the ability to organise the factors of production and utilize them in the most productive manner by establishing an enterprise. This development leads to increased production, employment and wealth generation. As a result, overall productivity and per capital income of the economy is raised.

#### 5) Improved Standard of Living:

EDPs provide latest technologies and innovative methods to entrepreneurs which helps them to produce large quantity of products at lower cost. This also enables entrepreneurs to exploit the available resources and produce quality products. This automatically leads to improved standard of living.

#### 6) Economic Independence :

EDPs strengthen the entrepreneurs to produce variety of products in large quantities at competitive prices. It also helps an entrepreneur to develop substitutes of imported products which prevents the country from being dependent on other foreign countries. It also saves foreign exchange of the country.

#### 7) Preventing Industrial Slums :

Most of the developed industrial areas are facing problems related to industrial slums. This leads to over burdening of public amenities and also affects the health of people adversely. EDPs offers several subsidies,



incentives, infrastructural support and financial grants to new entrepreneurs for establishing their businesses, thus, preventing the growth of industrial slums.

#### 8) Reducing Social Tension :

A majority of youngsters and educated individuals of the society are in the state of social unrest and tension. This social tension restricts them from finding the right direction in their careers. Most of the students feel frustrated about not getting a job after the completion of education. In such situations, EDPs help people by providing them proper guidance, assistance, training and support for establishing new enterprises and businesses. As a consequence, social tension is reduced as they generate self-employment opportunities.

#### 9) Facilitating Overall Development :

EDPs facilitate entrepreneurship which helps in the overall development of the society by producing new products, innovative services, low cost consumer goods, job opportunities, increasing the standard of living, and overall productivity. This facilitates in the overall development of the economy and the country.

### **Training and its advantages to Entrepreneurs**

<https://qsstudy.com/business-studies/advantages-of-entrepreneurship-training>

Entrepreneurship is proceeded of setting out on your own and starting a business instead of working for someone else in his business. We are conscious that entrepreneurship is regarded as one of the four major factors of production, the other three being land, labour and capital. The most understandable example of entrepreneurship is the starting of innovative businesses.

Entrepreneurship training provides individuals with the aptitude to identify business opportunities, self-esteem, knowledge and skills to act on them. It includes instruction in chance identification, commercializing a concept, managing resources, and initiating business speculation.

#### **Entrepreneurship training advantage include –**

- (1) It is an engine for job creation and economic growth. An entrepreneur sets up a new business and in doing so, provides employment opportunities. The govt. or local authorities carry out taxation and this goes increasing countries revenue.
- (2) Entrepreneurship brings out leadership qualities in an entrepreneur. Such an entrepreneur can be offered training opportunities to sharpen his skills. The trained entrepreneur can then benefit other organizations or a community.
- (3) Entrepreneurship efforts the entrepreneur the freedom to manage his enterprise as he wishes.
- (4) Entrepreneurship encourages competition as each potential entrepreneur tries to come up with the best innovation. This also translates in quality goods and services.
- (5) Entrepreneurs or the move towards self-employment is and will continue to become, an increasingly important element of economic growth and development.



## **Entrepreneurship Development Program**

<https://www.eshipsimplified.com/entrepreneurship-development-course>

Entrepreneurship Development Programme (EDP) is a programme which helps in developing entrepreneurial abilities. The skills that are required to run a business successfully is developed among the students through this programme. Sometimes, students may have skills but it requires polishing and incubation. This programme is perfect for them. This programme consists of a structured training process to develop an individual as an entrepreneur. It helps the person to acquire skills and necessary capabilities to play the role of an entrepreneur effectively.

EDP is an effort of converting a person to an entrepreneur by passing him through thoroughly structured training. An entrepreneur is required to respond appropriately to the market and he/she is also required to understand the business needs. The skills needed are varied and they need to be taken care in the best possible way. EDP is not just a training programme but it is a complete process to make the possible transformation of an individual into an entrepreneur. This programme also guides the individuals on how to start the business and effective ways to sustain it successfully.

### **Objectives of EDP**

The objective of this programme is to motivate an individual to choose the entrepreneurship as a career and to prepare the person to exploit the market opportunities for own business successfully. These objectives can be set both in the short-term and long-term basis.

- **Short-term objectives:** These objectives can be achieved immediately. In the short-term, the individuals are trained to be an entrepreneur and made competent enough to scan the existing market situation and environment. The person, who would be the future entrepreneur, should first set the goal as an entrepreneur. The information related to the existing rules and regulations is essential at this stage.
  - **Long-term objectives:** The ultimate objective is that the trained individuals successfully establish their own business and they should be equipped with all the required skills to run their business smoothly.
- The overall objectives of EDP are mainly to help in the rapid growth of the economy by supplying skilled entrepreneurs. This programme primarily aims at providing self-employment to the young generation.

### **Roles of EDP**

An Entrepreneurship Development Programme primarily plays four roles to help an individual to become an entrepreneur. They are:

- **Stimulatory Role:** It aims at influencing people in large number to be the entrepreneur. This includes:
  1. Developing managerial, technical, financial, and marketing skill
  2. inculcating personality traits
  3. Promotes and reforms entrepreneurial behavior and values
  4. Identifying a potential entrepreneur applying scientific methods
  5. Motivational training and building a proper attitude
  6. Strengthening the motive of a person and giving recognition
  7. The valuable know-how of the local products and the processes help in the selection of products, preparation of project reports
- **Supportive Role:** It helps in the following ways:
  1. Registration of the business
  2. Procurement of fund



3. Incubation support
  4. Team building and team development support
  5. Mentorship and guidance from industry experts
  6. Providing tax relief, subsidy, government schemes etc.
  7. Guidance in product marketing
  8. Support for management consultancy
- **Sustaining Role:** It aims at providing an effective safeguard to businesses to sustain against the cut-throat market competition. This includes:
    1. Help in modernization, expansion, and diversification
    2. Additional financing for further development
    3. Global Networking Opportunities
    4. Creating new marketing processes
    5. Helping access to improved services and co-working centers
  - **Socio-economic Role:** It aims at upgrading the socio-economic status of the public and includes:
    1. Identifying entrepreneurial qualities in practicality
    2. Creating employment opportunities in micro, small, and medium industries on an immediate basis
    3. Arresting concentration of industries by supporting regional development in a balanced manner
    4. Focusing on the equal distribution of income and wealth of the nation
    5. Channelizing the latent resources for building an enterprise





## UNIT –IV: PROJECT PLANNING AND FEASIBILITY STUDIES

Meaning of a project, Project identification – Sources of new Ideas, Methods of generating ideas, Project selection, - Project Feasibility Study -Project evaluation and Techniques (PBP, ARR, NPV, IRR & PI).

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### **Project:** (What Is a Project in Project Management?)

A project is a series of tasks that need to be completed to reach a specific outcome. A project can also be defined as a set of inputs and outputs required to achieve a particular goal. Projects can range from simple to complex and can be managed by one person or a hundred. Projects are often described and delegated by a manager or executive. They go over their expectations and goals, and it's up to the team to manage logistics and execute the project on time. Sometimes deadlines can be given. For good project productivity, some teams break it up into individual tasks to manage accountability and utilize team strengths.

A project's purpose **explains the reason for its existence**, the meaning of what is done, the ambition or dream pursued by the project or the direction it takes and maintains

**Examples:** A project is **a temporary venture to produce a new and unique deliverable**. A deliverable could be a tangible product, a service or achievement of a required outcome.

### **What are the 5 characteristics of a project?**

- i. Specific. The project must be specific. ...
- ii. Measurable. A clearly defined project must be measurable in terms of its benefits and achievements. ...
- iii. Achievable. A project will only be meaningful if it is achievable. ...
- iv. Relevant. The project needs to bring relevant benefits to the entity concerned. ...
- v. Time bound.

### **Phases of a project?** <https://searchcio.techtarget.com/definition/project-planning>

Projects typically pass through five phases. The project lifecycle includes the following:

- **Initiation** defines project goals and objectives. It also is when feasibility is considered, along with how to measure project objectives.
- **Planning** sets out the project scope. It establishes what tasks need to get done and who will do them.
- **Execution** is when the deliverables are created. This is the longest phase of a project. During execution, the plan is set into motion and augmented, if necessary.
- **Monitoring and management** occur during the execution phase and may be considered part of the same step. This phase ensures that the project is going according to plan.
- **Closing and review** is the final Contracts are closed out and the final deliverables are given to the client. Successes and failures are evaluated.

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## **Project identification**

<https://www.fao.org/investment-learning-platform/themes-and-tasks/project-identification/en/>

The purpose of project identification is to develop a preliminary proposal for the most appropriate set of interventions and course of action, within specific time and budget frames, to address a specific development goal in a particular region or setting. Investment ideas can arise from many sources and contexts. They can originate from a country's sector plan, programme or strategy, as follow-up of an existing project or from priorities identified in a multi-stakeholder sector or local development dialogue.

Identification involves:



- A review of alternative approaches or options for addressing a set of development problems and opportunities;
- The definition of project objectives and scope of work at the degree of detail necessary to justify commitment of the resources for detailed formulation and respective preparatory studies; and
- The identification of the major issues that must be tackled and the questions to be addressed before a project based on the concept can be implemented.

Sufficient information on project options must be gathered to enable the government and financing agencies to select a priority project and reach agreements among stakeholders on arrangements for preparation work, including setting up steering committees or national preparation teams. The results of identification work should be summarized in a report, project brief or concept document, the format of which will depend upon the government's and/or financing agencies' requirements.

## **Project Sources of new Ideas**

**<https://hahuzone.com/generation-and-screening-project-ideas>**

**Generation of Ideas:** Identifying suitable project ideas is the most important step in the whole process of project preparation. The search for promising project ideas is the first step towards establishing a successful venture. The key to success lies in getting into the right business in the right time. The objective is to identify investment opportunities which are feasible and promising.

Generation of an idea of producing a new product, new business, requires imagination sensitivity to environmental changes and the realistic assessment of what the firm can do? A project is not a product or commodity to be purchased. It has a promise as well as a risk.

An idea regarding a required intervention in a specific area to address identified problem is formed and developed. This idea is usually hatched through discussions by specialists and local leaders in a community need based on issues and turned into a proposal.

Generally project ideas are generated depending on:

- Consumer needs
- Market demand
- Resource availability
- Technology
- Natural calamity
- SWOT analysis
- Political considerations etc.,

The project idea selection is selection of project idea from available alternatives is to be best suited to the entrepreneurs' capacity, competence and willingness. The project Selection includes

- Profitability
- Feasibility
- Resource-ability
- Acceptability

The basic criterion for selection of a project could be existence of a favorable cost-benefit relationship.

People would like to select a project which requires a minimum investment, low degree of competence, completed in the shortest time, and which has the highest return potential.

A project idea should be SMART:

S – Specific objective

M – Measurable



A – Achievable

R – Realistic

T – Time bounded

**Project identification:** A search for promising project ideas could contribute towards achieving specified development objectives. Project identification should be an integral part of the Macro-planning exercise of the state with sectoral information and strategies as the main source of the ideas.

Generally ideas are formed from several sources based merely on some vested interests of the individuals involved. However irrespective of their origin, project ideas should be in general aim at overcoming constraints on the national development effort.

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<https://www.cleverism.com/18-best-idea-generation-techniques/>

### **Stages of successful ideation**

An organization needs to follow three main stages namely generation, selection and implementation for successful ideation.

#### **Stage #1: Generation**

For a lot of companies, making use of ideation to address a specific problem or requirement is frequently a good starting point. The majority of companies can easily identify these kinds of needs – the main decision is whether they contribute to an ideation approach. After problem-solving, come two other key chances for utilizing ideation: core competencies and consumer insights.

Core competencies, in reference to ideation, have to do with leveraging ideation to develop upon a company's abilities. In this kind of ideation, the organization is looking for fresh applications or new markets for existing services/products.

Consumer insights, with reference to ideation, have to do with utilizing principles of conventional market research (for example: focus groups and surveys) and implementing them in the context of a joint idea-sharing milieu. Surveys are effective though there are a few drawbacks: respondents would not be able to view other replies (to vote up/down or comment) and the response rates are usually pretty low. Even focus groups are effective though they fail to reach the heights of online ideation owing to factors such as price constraints that hinder them from accessing a bigger participant pool.

#### **Stage #2: Selection**

Picking the best ideas for an online business starts much before the beginning of the ideation process. It is essential that you fix the criteria by which the ideas are to be assessed, who would be responsible for evaluating the ideas, and how the top ideas would be given to the concerned internal teams for further assessment or execution. A proper selection process begins with the use of tags or labels to arrange the ideas into meaningful clusters. An example would be labels being arranged along product lines (such as phone, laptop, tablet) and tags being a level lower, concentrating on attributes (easy navigation, portable, long battery life, lightweight) and/or on features (display, operating system, interface). Labeling and tagging should be followed by prioritization to be certain that the most essential ideas reach the stage of application/execution.

#### **Stage #3: Implementation**

The success of implementation is dependent on an organization's ability to choose the top ideas and take action based on them. It also depends on the organization having appropriate workflows in place so that the right groups take part at the appropriate time in the three steps of the ideation process. The makeup of these workflows (that call out particular roles and aspects of responsibility) is very essential for organizations if they are to start any ideation endeavor. The people in the roles called out should be ready to take in new ideas



that don't come from within the company and possibly can be incentivized or otherwise acknowledged for their readiness to implement the new approach.

## 18 KILLER IDEA GENERATION TECHNIQUES

### 1. SCAMPER

Scamper is an idea generation technique that utilizes action verbs as stimuli. It is a well-known kind of checklist developed by Bob Eberie that assists the person in coming up with ideas either for modifications that can be made on an existing product or for making a new product. SCAMPER is an acronym with each letter standing for an action verb which in turn stands for a prompt for creative ideas.

- **S** – Substitute
- **C** – Combine
- **A** – Adapt
- **M** – Modify
- **P** – Put to another use
- **E** – Eliminate
- **R** – Reverse

### 2. Brainstorming

This process involves engendering a huge number of solutions for a specific problem (idea) with emphasis being on the number of ideas. In the course of brainstorming, there is no assessment of ideas. So, people can speak out their ideas freely without fear of criticism. Even bizarre/strange ideas are accepted with open hands. In fact, the crazier the idea, the better. Taming down is easier than thinking up.

Frequently, ideas are blended to create one good idea as indicated by the slogan "1+1=3." Brainstorming can be done both individually and in groups. The typical brainstorming group comprises six to ten people.

### 3. Mindmapping

Mindmapping is a graphical technique for imagining connections between various pieces of information or ideas. Each fact or idea is written down and then connected by curves or lines to its minor or major (previous or following) fact or idea, thus building a web of relationships. It was Tony Buzan, a UK researcher, who developed the technique "mind mapping" discussed in his book 'Use your Head' (1972). Mind mapping is utilized in brainstorming, project planning, problem solving and note taking. As is the case with other mapping methods, the intention behind brain mapping too is to capture attention and to gain and frame information to enable sharing of concepts and ideas.

To get started with mindmapping, the participant just has to write a key phrase or word in the middle of the page. Then, he must write anything else that comes to his mind on the very same page. After that, he must try to make connections as mentioned in the previous paragraph.

### 4. Synectics

Synectics is a creative idea generation and problem solving technique that arouses thought processes that the subject may not be aware of. It is a manner of approaching problem-solving and creativity in a rational manner. The credit for coming up with the technique which had its beginning in the Arthur D. Little Invention Design Unit, goes to William J.J. Gordon and George M. Prince.

The Synectics study endeavored to investigate the creative process while it is in progress. According to J.J. Gordon, three key assumptions are associated with Synectics research.



- It is possible to describe and teach the creative process
- Invention processes in sciences and the arts are analogous and triggered by the very same “psychic” processes
- Group and individual creativity are analogous

#### 5. Storyboarding

Storyboarding has to do with developing a visual story to explain or explore. Storyboards can help creative people represent information they gained during research. Pictures, quotes from the user, and other pertinent information are fixed on cork board, or any comparable surface, to stand for a scenario and to assist with comprehending the relationships between various ideas.

#### 6. Role playing

In the role playing technique, each participant can take on a personality or role different from his own. As the technique is fun, it can help people reduce their inhibitions and come out with unexpected ideas.

#### 7. Attribute listing

Attribute listing is an analytical approach to recognize new forms of a system or product by identifying/recognizing areas of improvement. To figure out how to enhance a particular product, it is broken into parts, physical features of each component are noted, and all functions of each component are explained and studied to see whether any change or recombination would damage or improve the product.

#### 8. Visualization and visual prompts

Visualization is about thinking of challenges visually so as to better comprehend the issue. It is a process of incubation and illumination where the participant takes a break from the problem at hand and concentrates on something wholly different while his mind subconsciously continues to work on the idea. This grows into a phase of illumination where the participant suddenly gets a diversity of solutions and he rapidly writes them down, thereby creating fresh parallel lines of thought.

Picture prompts help a lot when it comes to enabling one’s brain to establish connections. These prompts can help to surface emotions, feelings and intuitions. This makes them particularly useful for brainstorming solutions to innovative challenges involving people, and issues with a deep psychological or emotional root cause.

To get started with using picture prompts, the facilitator distributes a set of pre-selected images – each participant gets one. He also asks the participants to write down whatever ideas come to their mind when they look at the image in their possession. According to Bryan Mattimore (presently co-founder of The Growth Engine Company), the images should be visually interesting, portraying a multiplicity of subject matter and must depict people in lots of varied kinds of relationships and interactions with other people.

After this, participants pair off and use additional time, sharing and talking about the ideas they have come up with and brainstorming more solutions to the existing problem/challenge. Lastly, the various pairs present their ideas to the rest of the group.

Mattimore suggests tailoring the visuals to the character of the challenge the participants have to solve. So, if the challenge pertains to the manufacturing industry, you could consider having images of an industrial nature. However, you should definitely include some irrelevant or random images as well because it may be these kinds of images that trigger the most innovative solutions.

#### 9. Morphological analysis

Morphological analysis has to do with recognizing the structural aspects of a problem and studying the relationships among them. For example: Imagine the problem is transporting an object from one place to another by way of a powered vehicle. The significant dimensions are: the kind of vehicle (cart, sling, bed, chair); the power source (internal-combustion engine, pressed air, electric motor); and the medium (air, hard surface, rails, rollers, oil, water). Thus, a cart-kind of vehicle moving over rough services with an internal-



combustion engine to power it is the automobile. The expectation is that it would be possible to determine some novel combinations.

#### 10. Forced relationships

It is an easy technique involving the joining of totally different ideas to come up with a fresh idea. Though the solution may not be strictly unique, it frequently results in an assortment of combinations that are often useful. A lot of products we see today are the output of forced relationships (such as a digital watch that also has a calculator, musical birthday cards and Swiss army knife). Most of these ideas may not be revolutionary discoveries but they are still advantageous products and usually have a prospective market in society. Robert Olson provided an example for forced analogy in his book 'The Art of Creative Thinking.' He compares different aspects of a corporate organization structure to the structure of a matchbox.

#### 11. Daydreaming

Though mostly not met with approval, daydreaming is truly one of the most fundamental ways to trigger great ideas. The word "daydream" itself involuntarily triggers an uninhibited and playful thought process, incorporating the participant's creativity and resourcefulness to play around with the present problem. It enables a person to establish an emotional connection with the problem, which is beneficial in terms of coming up with a wonderful idea. The focus of productive daydreaming is a particular goal irrespective of whether it seems to be an impractical task. Plenty of famous inventors have engaged in daydreaming in the past, thereby setting off ideas that contributed to life altering inventions. The airplane is the most notable example for this. If the Wright brothers had not let their imagination run wild thinking about flight, we would probably still be traveling by ferry.

#### 12. Reverse thinking

As the term 'reverse thinking' itself suggests, instead of adopting the logical, normal manner of looking at a challenge, you reverse it and think about opposite ideas. For example: 'how can I double my fan base?' can change into 'how do I make sure I have no fans at all?' You may notice that the majority of participants would find it easier to produce ideas for the 'negative challenge' simply because it is much more fun. However, don't spend too much time on the reverse idea-generation – about 10 to 15 wrong ideas is fine. After one session is over, you can either continue in the reverse idea atmosphere with a new challenge or else do the reversal once more to make it stronger. An example for the latter is "I am never going to update any of my social networks" changing into "I am going to always update all of my social networks."

#### 13. Questioning assumptions

The majority of industries have an orthodoxy – unspoken but deeply-held beliefs that everyone stands by for getting things done. Sadly, they fail to realize that by questioning assumptions at every step of service or product development, they can actually enable the birth of fresh possibilities and ideas.

Here's how Mattimore suggests one go about questioning assumptions: The participants should start by settling on the framework for the creative challenge. After this, they should produce 20 to 30 assumptions (irrespective of whether they are true or false). The next step is to select several assumptions from the many generated, and utilize them as idea triggers and thought starters to engender fresh ideas.

#### 14. Accidental genius

Accidental genius is a relatively new technique that utilizes writing to trigger the best ideas, content and insight.

#### 15. Brainwriting

Brainwriting is easy. Instead of asking the participants to shout out ideas, they are told to pen down their ideas pertaining to a specific problem or question on sheets of paper, for a small number of minutes. After that, each participant can pass their ideas over to someone else. This someone else reads the ideas on the paper and adds some new ones. Following another few minutes, the individual participants are again made to pass their papers to someone else and so the process continues. After about 15 minutes, you or someone else can collect the sheets from them and post them for instant discussion.



## 16. Wishing

This technique can be begun by asking for the unattainable and then brainstorming ideas to make it or at least an approximation of it, a reality. Start by making the wishes tangible. There should be collaboration among the members of the team to produce 20 to 30 wishes pertaining to your business. Everyone's imagination should be encouraged to run wild – the more bizarre the idea, the better. There should be no restrictions on thinking.

The next step is concentrating on a number of these unattainable wishes and utilizing them as creative stimuli to trigger ideas that are new but more practical. Mattimore suggests getting the team to challenge the problem from diverse perspectives (imagine how a person from another planet or from another industry or profession would view it) or reflect on it. This type of role playing assists with moving away from conventional thinking patterns to see fresh possibilities.

## 17. Socializing

If employees only hang around with colleagues and friends, they could find themselves in a thinking rut. Let them utilize all those LinkedIn connections to begin some fantastic conversations. Refreshing perspectives will assist with bringing out new thinking and probably, one or two lightning bolts. Socializing in the context of ideation can also be about talking to others on topics that have nothing whatsoever to do with the present problem.

## 18. Collaboration

As the term indicates, collaboration is about two or more people joining hands in working for a common goal. Designers frequently work in groups and engage in collaborative creation in the course of the whole creative process.

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<https://www.ecosys.net/blog/project-selection-prioritization-guide/#:~:text=Project%20selection%20is%20the%20process,determine%20the%20order%20of%20execution.>

There is no lack of project ideas in organizations today. Rather, there seems to be a problem of too many ideas, as a long pipeline of proposals wait in queue, competing for attention. Given the large scale and complexity of projects, as well as constraints in resources such as time and budget, the challenge is to identify the perfect combination of projects that can fetch highest returns.

## What Is Project Selection?

Project selection is the process of evaluating and choosing projects that both align with an organization's objectives and maximize its performance.

Prioritization refers to ranking or scoring projects, based on certain criteria, to determine the order of execution. However, the terms "prioritization" and "selection" are often used interchangeably, as the two processes are intertwined.

Selection and prioritization are important elements of project portfolio management (PPM), an approach that connects the execution of projects with high-level business strategy. As per the 2017 PMI report, 37% of project failures are attributed to a lack of clearly defined objectives and discipline when implementing strategy. This demonstrates how crucial the PPM function is.

PPM implementation can be time consuming, which is why establishing a project management office (PMO) that works on selection and prioritization can be extremely beneficial.



## Benefits of Project Selection and Prioritization

Project selection and prioritization are all about having a game plan that accounts for both capacity and strategy. Let's take a look at the benefits that companies stand to gain when these are balanced right.

**Better ROI:** The fundamental outcome of any project selection process is to increase the ROI. Several selection criteria and prioritization methods, discussed later in the article, can be used to weigh projects against each other, based on their returns.

**Increased efficiencies:** By investing effort upfront to evaluate the project pool, companies weed out inefficiencies that may creep up later due to not having enough capacity for execution.

**Strategic alignment:** A project that does not cater to organizational goals, even if executed flawlessly, is a waste of time. The right selection helps companies stay on track with their goals.

**Consistency and transparency:** A standard selection approach helps the PMO benchmark projects against well-defined criteria rather than use ad-hoc processes that lead to inconsistent approvals. The upside of this consistent approach is transparent downstream communication, as project managers get clarity on why a certain project was approved or rejected.

**Shorter time-to-market:** As companies become larger, they struggle to maintain an aggressive time-to-market, with a sea of projects competing for attention. Prioritization of projects gives companies the first-mover advantage, enabling them to reach customers before competition.

**Successful project delivery:** When organizations have good project selection and prioritization processes in place, it leads to the successful delivery of projects

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<https://www.investopedia.com/terms/f/feasibility-study.asp>

## What Is a Feasibility Study?

A feasibility study is an analysis that considers all of a project's relevant factors—including economic, technical, legal, and scheduling considerations—to ascertain the likelihood of completing the project successfully.

Whether a project is feasible or not can depend on several factors, including the project's cost and return on investment, meaning whether the project generated enough revenue or sales from consumers.

However, a feasibility study isn't only used for projects looking to measure and forecast financial gains. In other words, feasible can mean something different, depending on the industry and the project's goal. For example, a feasibility study could help determine whether a hospital can generate enough donations and investment dollars to expand and build a new cancer center.

Although feasibility studies can help project managers determine the risk and return of pursuing a plan of action, several steps and best practices should be considered before moving forward.

## Understanding a Feasibility Study

A feasibility study is an assessment of the practicality of a proposed plan or project. A feasibility study analyzes the viability of a project to determine whether the project or venture is likely to succeed. The study is also designed to identify potential issues and problems that could arise from pursuing the project.



As part of the feasibility study, project managers must determine whether they have enough people, financial resources, and the appropriate technology. The study must also determine the return on investment, whether it's measured as a financial gain or a benefit to society, as in the case of a nonprofit.

In some cases, a feasibility study might include a significant change in how a business operates, such as an acquisition of a competitor. As a result, the feasibility study might include a cash flow analysis, measuring the level of cash generated from revenue versus the project's operating costs. A risk assessment must also be completed to determine whether the return is enough to offset the level of risk of undergoing the venture.

### Benefits of a Feasibility Study

There are several benefits to feasibility studies, including helping project managers discern the pros and cons of undertaking a project before investing a significant amount of time and capital into it. Feasibility studies can also provide a company's management team with crucial information that could prevent them from entering into a risky business venture.

Feasibility studies also help companies with new business development, including determining how it will operate, potential obstacles, competition, market analysis, and the amount and source of financing needed to grow the business. Feasibility studies aim for marketing strategies that could help convince investors and banks that investing in a particular project or business is a wise choice.

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<https://efinancemanagement.com/investment-decisions/investment-appraisal-techniques>

### Investment Appraisal Techniques

### Investment Appraisal Techniques

Investment appraisal techniques are payback period, internal rate of return, net present value, accounting rate of return, and profitability index. They are primarily meant to appraise the performance of a new project. The first question that comes to our mind before beginning any new project is "Whether it is viable or profitable? These techniques answer this question very well. Each technique evaluates the project from a different angle and provides a different insight. Let us understand these techniques in brief.

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### Project evaluation

Project evaluation is a systematic and objective assessment of an ongoing or completed project. The aim is to determine the relevance and level of achievement of project objectives, development effectiveness, efficiency, impact and sustainability. Evaluations also feed lessons learned into the decision-making process of the project stakeholders, including donors and national partners.

### NPV and IRR

<https://www.investopedia.com/ask/answers/05/npv-irr.asp>

Net present value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. By contrast, the Internal Rate of Return (IRR) is a calculation used to estimate the profitability of potential investments.

Both of these measurements are primarily used in capital budgeting, the process by which companies determine whether a new investment or expansion opportunity is worthwhile. Given an investment opportunity, a firm needs to decide whether undertaking the investment will generate net economic profits or losses for the company.



## Determining NPV

To do this, the firm estimates the future cash flows of the project and discounts them into present value amounts using a discount rate that represents the project's cost of capital and its risk. Next, all of the investment's future positive cash flows are reduced into one present value number. Subtracting this number from the initial cash outlay required for the investment provides the net present value of the investment.

Let's illustrate with an example: suppose JKL Media Company wants to buy a small publishing company. JKL determines that the future cash flows generated by the publisher, when discounted at a 12 percent annual rate, yields a present value of \$23.5 million. If the publishing company's owner is willing to sell for \$20 million, then the NPV of the project would be \$3.5 million (\$23.5 - \$20 = \$3.5). The NPV of \$3.5 million represents the intrinsic value that will be added to JKL Media if it undertakes this acquisition.

## Determining IRR

So, JKL Media's project has a positive NPV, but from a business perspective, the firm should also know what rate of return will be generated by this investment. To do this, the firm would simply recalculate the NPV equation, this time setting the NPV factor to zero, and solve for the now unknown discount rate. The rate that is produced by the solution is the project's internal rate of return (IRR).

For this example, the project's IRR could—depending on the timing and proportions of cash flow distributions—be equal to 17.15%. Thus, JKL Media, given its projected cash flows, has a project with a 17.15% return. If there were a project that JKL could undertake with a higher IRR, it would probably pursue the higher-yielding project instead.

Thus, you can see that the usefulness of the IRR measurement lies in its ability to represent any investment opportunity's possible return and compare it with other alternative investments.

Several investment criteria, which help a firm to evaluate investment proposals, are in practice. The most important ones among them are:

## **Net Present Value (NPV)**

Net present value is a method that is used to determine the present value of all future cash flows which will be generated by the investment. It then compares the present value of all future cash inflows with the value of the cash outflows to decide if the investment should be made or not. Suppose that a project costs you \$1,000 (cash outflow) and it will generate you future cash flows of \$500, \$300 and \$800 in the first, second and third years respectively. Also suppose, that you expect a minimum of 8% return per annum from this investment considering its risk. So, Net Present Value will be the difference between cash outflow and the present value of the future cash inflows. We can calculate it as:

$$\begin{aligned}\text{NPV} &= [\$500/(1 + 0.08)^1 + \$300/(1 + 0.08)^2 + \$800/(1 + 0.08)^3] - \$1,000 \\ &= \$1335.23 - \$1,000 = \$335.23\end{aligned}$$

Considering that the Net Present Value of the investment is positive, the investment proposal should be accepted since this means that the investment is providing more returns than the expected return of 8% per annum. Had the NPV been negative, we would have rejected the proposal since it would have meant that the investment is providing returns lesser than 8% per annum.

## **Internal Rate of Return (IRR)**

The concept of the Internal Rate of Return is quite simple to understand. Suppose that you invest \$10,000 in a bank today and you will be getting \$10,800 after one year. In this case, IRR will be:



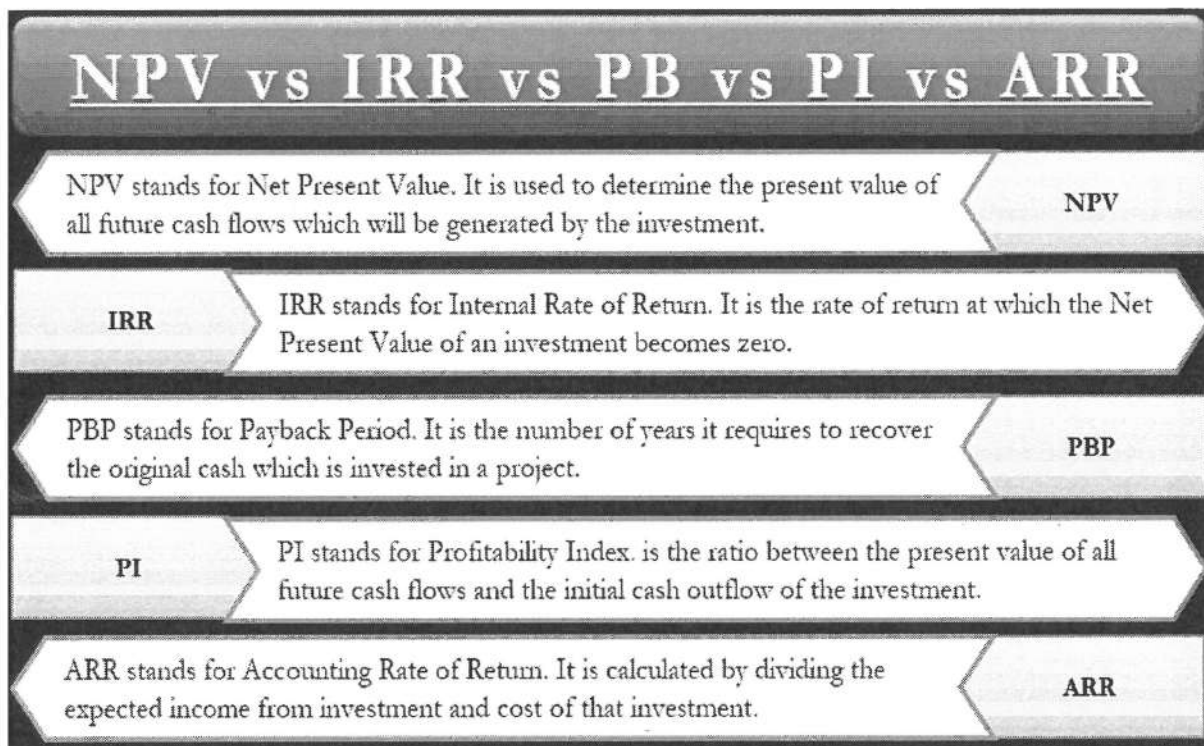
$$IRR = \$10,800 - \$10,000 / \$10,000 = \$800 / \$10,000 = 8\%$$

IRR, in other words, is the rate of return at which the **Net Present Value** of an investment becomes zero.

### Payback (PB)

Payback is the number of years it requires to recover the original investment which is invested in a project. If the project generates constant annual cash inflows, we can calculate the payback period as:

$$\text{Payback} = \text{Initial Investment} / \text{Annual Cash Inflow}$$



### Profitability Index (PI)

Profitability Index is the ratio between the present value of all future cash flows and the initial cash outflow of the investment. If the ratio is greater than 1, then according to the PI method, the company should accept the project since it is providing returns that are greater than the minimum return you expect (used in calculating present value).

$$PI = \text{Present Value of Future Cash Flows} / \text{Initial Cash Outlay}$$

### Accounting Rate of Return (ARR)

The accounting rate of return is also known as the return on investment (ROI). ARR does not consider the time value of money. It is calculated by dividing the income which the company expects to generate from its investment and the cost of that investment.

$$ARR = (\text{Investment Income} / \text{Cost of Investment}) * 100$$

### Differences between the Five Methods



Point of difference	Net Present Value (NPV)	Internal Rate of Return (IRR)	Payback (PB)	Profitability Index	Accounting Rate of Return
Meaning	The present value of all future cash flows, less present value of the cash outflow	The rate at which the present value of future cash flows equals the cash outflow	The time within which we will recover the initial cash outflow.	The present value of future cash inflow, as the number of times of cash outflow	Percentage return on the cash invested.
Expressed as	We express NPV in the form of currency returns.	IRR is expressed in the form of percentage returns.	We express PB in the form of a time period.	PI is expressed in the form of a ratio.	We express ARR in the form of a percentage.
Focus	NPV focuses on determining whether the investment is generating surplus returns than the expected returns.	IRR focuses on determining what is the breakeven rate at which the present value of the future cash flows becomes zero.	Payback focuses on determining the time period within which the initial investment can be recovered.	PI focuses on determining how many times of the initial investment are we going to get back.	Focused on determining the percentage returns from an investment



Point of difference	Net Present Value (NPV)	Internal Rate of Return (IRR)	Payback (PB)	Profitability Index	Accounting Rate of Return
Discount Rate	NPV requires the use of a discount rate which can be difficult to ascertain.	IRR doesn't have this difficulty since it 'calculates' the rate of return.	Payback also does not use discount rates.	PI uses a discount rate to discount the future cash flows.	ARR does not have the difficulty of ascertaining an appropriate discount rate.
Calculation of Present Value	NPV calculates the present value of future cash flows.	IRR ignores the present value of future cash flows.	PB method also ignores the present value of future cash flows.	The PI method calculates the present value of future cash flows.	ARR does not calculate the present value of future cash flows



## UNIT –V: SMALL AND MICRO ENTERPRISES

Importance, definitions, MSME's Development Act 2006 – policies and their support to MSMEs - Growth of Firm and growth strategies, Factors inducing growth – sickness in small business and remedies.

[https://wbmsme.gov.in/what\\_msme](https://wbmsme.gov.in/what_msme)

### Main Features & Implications

The Parliament of India has enacted the Micro, Small and Medium Enterprises Development Act, 2006. The implications of the various provisions of the Act need to be studied in the backdrop of the general scenario of micro, small and medium enterprises in our State.

### The Objective of the MSMED Act

To facilitate the promotion and development of and enhancing the competitiveness of micro, small and medium, enterprises and for matters connected therewith or incidental thereto.

### Main Features of the MSMED Act

#### Constitution of a National Board for Micro, Small and Medium Enterprises to:

- Examine the factors affecting the promotion and development of micro, small and medium enterprises and review the policies and programmes of the Central Government in this direction;
- Make recommendations for facilitating promotion and development of and enhancing the competitiveness of the micro, small and medium enterprises.
- Advise the Central Government on use of the Fund or Funds constituted under Section 12 of the Act.

#### Classification of Enterprises (Principal Trade in First Schedule of IDR Act, 1951)

Nature of Enterprises	Manufacturing or production of goods	Providing or rendering service
Micro	Investment in plant and machinery up to Rs. 25.0 lakhs.	Investment in equipment up to Rs. 10.0 lakhs.
Small	Investment in plant & machinery above Rs. 25.0 lakhs but not exceeding Rs.5.0 crores.	Investment in equipment above Rs. 10.0 lakhs but not exceeding Rs.2.0 crores.
Medium	Investment in plant & machinery above Rs. 5.0 crores but not exceeding Rs.10.0 crores.	Investment in equipment above Rs. 2.0 crores but not exceeding Rs. 5.0 crores.

#### Constitution of Advisory Committee at national level to make recommendations:

- level of employment in a class or classes of enterprises;
- level of investment in plant and machinery or equipments;



- Discretionary for a micro or small enterprise and also for a medium enterprises engaged in providing or rendering of services,
- Obligatory (compulsory) for a medium enterprise engaged in the manufacture or production of goods pertaining to any industry specified in the First Schedule (IDR Act),
- For medium enterprises, the Central Government shall specify by notification the authority with whom they would file memorandum,
- In respect of micro & small enterprises the State Govt. shall by notification, specify such Authority.

**Measures for promotion, development and enhancement of competitiveness of micro, small and medium enterprises:**

- Extension of credit facility for micro, small and medium enterprises,
- Preference policies in procurement of goods and services for micro and small enterprises,
- Provision for Central funds.

**Delayed payments to micro and small enterprises:**

The Act stipulates that the payments for supplies or services have to be cleared in favour of micro and small enterprises within 45 days of acceptances. The State Government shall, by notification, constitute one or more Micro and Small Enterprises Facilitation Council to monitor the matter of delayed payments

**Power to make Rules:**

- The Central Government may, by notification, make rules to carry out the provisions of the Act.
- The State Government may also, by notification, make rules to carry out the provisions of the Act.

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<https://blog.hubspot.com/sales/growth-strategy>

Growth strategy allows companies to expand their business. Growth can be achieved by practices like adding new locations, investing in customer acquisition, or expanding a product line. A company's industry and target market influences which growth strategies it will choose.

Strategize, consider the available options, and build some into your business plan. Depending on the kind of company you're building, your growth strategy might include aspects like:

- Adding new locations
- Investing in customer acquisition
- Franchising opportunities
- Product line expansions
- Selling products online across multiple platforms

Your particular industry and target market will influence your decisions, but it's almost universally true that new customer acquisition will play a sizable role.

Not sure what that looks like for your business? Here are some actionable tactics for achieving growth.



1. Use a growth strategy template.
2. Choose your targeted area of growth.
3. Conduct market and industry research.
4. Set growth goals.
5. Plan your course of action.
6. Determine your growth tools and requirements.
7. Execute on your plan.

1. Use a growth strategy template [Recommended Tool].



### Image Source

Don't hit the ground running without planning out and documenting the steps for your growth strategy. We recommend [downloading this free Growth Strategy Template](#) and working off the included section prompts to outline your intended process for growth in your organization.

### **2. Choose your targeted area of growth.**

It's great that you want to grow your business, but what exactly do you want to grow?

Your business growth plan should hone in on specific areas of growth. Common focuses of strategic growth initiatives might include:

- Growth in employee headcount



- Expansion of current office, retail, and/or warehouse space
- Addition of new locations or branches of your business
- Expansion into new regions, locations, cities, or countries
- Addition of new products and/or services
- Expanding purchase locations (i.e. selling in new stores or launching an online store)
- Growth in revenue and/or profit
- Growth of customer base and/or customer acquisition rate

It's possible that your growth plan will encompass more than one of the initiatives outlined above, which makes sense — the best growth doesn't happen in a vacuum. For example, growing your unit sales will result in growth in revenue — and possibly additional locations and headcount to support the increased sales.

### **3. Conduct market and industry research.**

After you've chosen what you want to grow, you'll need to justify why you want to grow in this area (and if growth is even possible).

Conducting research on the state of your industry is the best way to determine if your desired growth is both necessary and feasible. Examples could include running surveys and focus groups with existing and potential customers or digging into existing industry research.

The knowledge and facts you uncover in this step will shape the expectations and growth goals for this project to better determine a timeline, budget, and ultimate goal. Which brings us to step four...

### **4. Set growth goals.**

Once you've determined *what* you're growing and *why* you're growing, the next step is to determine *how much* you'll be growing.

These goals should be based on your endgame aspirations of where you ideally want your organization to be, but they should also be achievable and realistic – which is why setting a goal based on industry research is so valuable.

Lastly, take the steps to quantify your goals in terms of metrics and timeline. Aiming to "*grow sales by 30% quarter-over-quarter for the next three years*" is much clearer than "*increasing sales.*"

### **5. Plan your course of action.**

Next, outline how you'll achieve your growth goals with a detailed growth strategy. Again – we suggest writing out a detailed **growth strategy plan** to gain the understanding and buy-in of your team.



### Growth Action Plan

This action plan explains how you're growing by setting measurable goals, timelines, and responsibilities.

#### Timeline

In the table below, outline which tasks are required to be done, and by when they must be complete - in order to achieve your desired goal(s).

Due Date	Task	Task Owner	Notes
When is the task due?	What is the task?	Who is responsible for completing it?	Does the task require an explanation or external link?

#### Growth Team

Provide a list of parties that are involved with this growth project.

Name	Team	Role in Project	Email Address

### Download this Template

This action plan should contain a list of action items, deadlines, teams or persons responsible, and resources for attaining your growth goal.

### 6. Determine your growth tools and requirements.

The last step before acting on your plan is determining any requirements your team will need through the process. These are specific resources that will help you meet your growth goals faster and with more accuracy. Examples might include:

- **Funding:** Organizations may need a capital investment or an internal budget allocation to see this project through.
- **Tools & Software:** Consider what technological resources may be needed to expedite and/or gain insights from the growth process.
- **Services:** Growth may be better achieved with the help of consultants, designers, or planners in a specific field.

### 7. Execute your plan.

With all of your planning, resourcing, and goal-setting complete, you're now ready to execute your company growth plan and deliver results for the business.

Throughout this time, make sure you're holding your stakeholders accountable, keeping the line of communication open, and comparing initial results to your forecasted growth goals to see if your projected results are still achievable or if anything needs to be adjusted.

Your growth plan and the tactics you leverage will ultimately be specific to your business, but there are some strategies you can look to as jumping off points.



## What is a sickness in a small business

[https://en.wikipedia.org/wiki/Industrial\\_sickness](https://en.wikipedia.org/wiki/Industrial_sickness)

Industrial sickness is a term applied to various things associated with industry that make people ill and cause them to miss work. The solutions will have to be tailored to the specific industry, and only in that way can any real effect be made on improving the health and productivity of the industrial workforce.

The key is an aggressive work-up on the health issues for a given segment of the industrial workforce, and usually broken down by type of work (which makes sense). Even as coal miners face overpowering respiratory threats, and foundry and mill workers have to confront major physical threats from large (heavy) quantities of extremely hot materials, each facet of industrial production has its hot-button health issues.

Industrial health managers need training and experience identifying and remediating conditions that present major health threats to their respective workforces. Then they can train the rest of management and can teach the workers themselves about the best way to carry out their jobs with minimum threats to their health.

According to Companies (Second Amendment) Act, 2002

"Sick Industrial Company' means an industrial company which has

- i) The Accumulated losses in any financial year equal to 50 per cent or more of its average net worth during four years immediately preceding such financial year; or
- ii) Failed to repay its debts within any three consecutive quarters on demand made in writing for its repayment by a creditor or creditors of such company."

### Industrial Sickness In Hyderabad[edit]

Industrial sickness specially in small-scale Industry has been always a demerit for the Indian economy, because more and more industries like – cotton, Jute, Sugar, Textiles small steel and engineering industries are being affected by this sickness problem.

As per an estimate 300 units in the medium and large scale sector were either closed or were on the stage of closing in the year 1976. About 10% of 4 lakhs unit were also reported to be ailing. And this position also remain same in the next decades. At the end of year 1986, the member of sick units in the portfolio of scheduled commercial banks stood at 1,47,740 involving an out standing bank credit of Rs. 4874 crores.

- Where the total number of large Industries which are sick were 637 units at the end of year 1985 increased to 714 units in the end of next year 1986.
- Likewise on the other hand the number of sick small scale units were also increased 1.18 lakhs at the end of 1985 to 1.46 lakhs at the end of 1986.
- The bank amount which was outstanding in case of large industries for the same period also increased from Rs.2,900 crores to Rs. 3287 crores at the end of year 1986
- Dues of Small Scale sector also increased from Rs.1071 crores to Rs.1306 crores at the end of the year 1986.
- Of the 147, 740 sick industrial units which contains large medium as well as small scale involving the total bank loan (credit) of Rs. 4874 at the end of the year 1986.

### Causes of sickness in small scale industry[edit]

The different types of industrial sickness in Small Scale Industry (SSI) fall under two important categories. They are as follows:

#### Internal causes for sickness[edit]

We can say pertaining to the factors which are within the control of management. This sickness arises due to internal disorder in the areas justified as following:



a) Lack of Finance: This including weak equity base, poor utilization of assets, inefficient working capital management, absence of costing & pricing, absence of planning and budgeting and inappropriate utilization or diversion of funds.

b) Bad Production Policies : Another very important reason for sickness is wrong selection of site which is related to production, inappropriate plant & machinery, bad maintenance of Plant & Machinery, lack of quality control, lack of standard research & development and so on.

c) Marketing and Sickness : This is another part which always affects the health of any sector as well as SSI. This including wrong demand forecasting, selection of inappropriate product mix, absence of product planning, wrong market research methods, and bad sales promotions.

d) Inappropriate Personnel Management: Another internal reason for the sickness of SSIs is inappropriate personnel management policies which includes bad wages and salary administration, bad labour relations, lack of behavioural approach causes dissatisfaction among the employees and workers.

e) Ineffective Corporate Management: Another reason for the sickness of SSIs is ineffective or bad corporate management which includes improper corporate planning, lack of integrity in top management, lack of coordination and control etc.

#### External causes for sickness<sup>[edit]</sup>

a) Personnel Constraint: The first for most important reason for the sickness of small scale industries are non availability of skilled labour or manpower wages disparity in similar industry and general labour invested in the area.

b) Marketing Constraints: The second cause for the sickness is related to marketing. The sickness arrives due to liberal licensing policies, restrain of purchase by bulk purchasers, changes in global marketing scenario, excessive tax policies by govt. and market recession.

c) Production Constraints: This is another reason for the sickness which comes under external cause of sickness. This arises due to shortage of raw material, shortage of power, fuel and high prices, import-export restrictions.

d) Finance Constraints: Another external cause for the sickness of SSIs is lack of finance. This arises due to credit restrains policy, delay in disbursement of loan by govt., unfavorable investments, fear of nationalization.

e) credit squeeze initiated by the government policies.





**NARASARAOPETA**  
**ENGINEERING COLLEGE**  
(AUTONOMOUS)

**DEPARTMENT OF MECHANICAL ENGINEERING**

**MID & ASSIGNMENT  
EXAMINATION QUESTION  
PAPERS WITH SCHEME AND  
SOLUTIONS**



**Narasaraopeta Engineering College (Autonomous)**  
**Dept. of Mechanical Engineering**  
**B. Tech III Year I Semester**  
**Assignment No. 1 (for both Sections A & B)**

Subject: Entrepreneurship and Innovation (19BCC5TH01)

Max. Marks: 10M

**(Only 2 questions to be answered)**

Date: 04.10.2021

Duration: 30 Min.

S. No	Questions	Knowledge Level as per Bloom's Taxonomy	Course Outcome (CO)	Marks
1	<b>Explain</b> the concept of entrepreneur and entrepreneurship	Evaluating (K5)	CO1	5M
2	<b>List</b> the characteristics of entrepreneur	Analyzing (K4)	CO1	5M
3	<b>Categorize</b> the types of entrepreneurs	Analyzing (K4)	CO1	5M
4	<b>Explain</b> the role of entrepreneur in economic development	Evaluating (K5)	CO1	5M
5	How to <b>Justify</b> the Importance of ethics and social responsibility in entrepreneurship	Analyzing (K5)	CO1	5M
6	How the entrepreneurs will get the financial institutional support. Explain by <b>make use of</b> an example	Applying (K3)	CO1	5M



**Scheme of Evaluation of B. Tech III Year I Semester Assignment No. 1**

Subject: Entrepreneurship and Innovation (19BCC5TH01)

1. For concept of entrepreneur : 2.5 Marks  
For concept of entrepreneurship: 2.5 Marks
2. Any five characteristics of entrepreneur : 5 Marks
3. Any five categories of entrepreneurs : 5 Marks
4. Any five roles of entrepreneur in economic development: 5 Marks
5. For concept of Importance of ethics: 2.5 Marks  
And social responsibility in entrepreneurship: 2.5 Marks
6. Explanation 3 Marks, example – 2 Marks



**Dept. of Mechanical Engineering**  
**B. Tech III Year I Semester**  
**Assignment No. 2 (for both Sections A & B)**

Subject: Entrepreneurship and Innovation (19BCC5TH01)

Max. Marks: 10M

**(Only 2 questions to be answered)**

Date: 01.11.2021

Duration: 30 Min.

S. No	Questions	Knowledge Level as per Bloom's Taxonomy	Course Outcome (CO)	Marks
1	<b>Explain</b> the concept of creativity by make use of two examples	Evaluating (K5)	CO2	5M
2	<b>Simplify</b> the Characteristics of Creativity	Analyzing (K4)	CO2	5M
3	<b>List</b> the factors affecting creativity	Analyzing (K4)	CO2	5M
4	Explain the stages of the Creative Process by <b>make use of</b> a diagram	Applying (K3)	CO2	5M
5	<b>Judge</b> the importance Innovation process	Evaluating (K5)	CO2	5M
6	<b>Distinguish</b> the Creativity and Innovation processes.	Analyzing (K4)	CO2	5M



**Scheme of Evaluation of B. Tech III Year I Semester Assignment No. 2**

**Subject: Entrepreneurship and Innovation (19BCC5TH01)**

1. Explanation 3 Marks, example – 2 Marks
2. Any five characteristics of entrepreneur : 5 Marks
3. Any five factors: 5 Marks
4. Explanation 3 Marks, Diagram – 2 Marks
5. Any five judging points: 5 Marks
6. Any five comparisons: 5 Marks



**Assignment No. 3** (Common for both Sections A & B)

Subject Code: 19BCC5TH01

Date: 13.12.2021

Max. Marks: 10M

Duration: 30 Min.

(Only 2 questions to be answered)

S. No	Questions	Knowledge Level as per Bloom's Taxonomy	Course Outcome (CO)	Marks
1	Explain the project in Project Management and list some of the examples	Understanding (K2)	CO4	5M
2	Summarize the Characteristics of a project	Understanding (K2)	CO4	5M
3	What are the Phases of a project and explain them in detail.	Understanding (K2)	CO4	5M
4	How to identify a project and Identify the Project Sources for generation of Ideas	Applying (K3)	CO4	5M
5	Explain the Project Feasibility Study and list its benefits	Understanding (K2)	CO4	5M
6	What is the Project evaluation and summarize the the Project evaluation techniques of PBP, ARR, NPV, IRR & PI	Understanding (K2)	CO4	5M



**Scheme of Evaluation of B. Tech III Year I Semester Assignment No. 3**

**Subject: Entrepreneurship and Innovation (19BCC5TH01)**

1. Definition 2 Marks, Any three objectives – 3 Marks
2. Any five advantages of EDP : 5 Marks
3. Any five rolls of EDP with explanation: 5 Marks
4. Explanation 3 Marks, Two examples – 2 Marks
5. Any five Characteristics of a project: 5 Marks
6. Any five phases of Project with explanation: 5 Marks



Narasaraopeta Engineering College (Autonomous)  
Dept. of Mechanical Engineering, B. Tech III Year I Semester  
ENTREPRENEURSHIP AND INNOVATION (Common for Sections A & B)  
**Assignment No. 4** (Common for both Sections A & B)

Subject Code: 19BCC5TH01

Max. Marks: 10M

Date: 03.01.2022

Duration: 30 Min.

(Only 2 questions to be answered)

S. No	Questions	Knowledge Level as per Bloom's Taxonomy	Course Outcome (CO)	Marks
1	What is a project and identify the factors which influence the projects and its ideas	Applying (K3)	CO4	5M
2	What is the Project Feasibility and explain how it is helping the company's management	Evaluating (K5)	CO4	5M
3	Summarize the Project evaluation and Analyze the common rationales for conducting an evaluation	Analyzing (K4)	CO4	5M
4	Define MSMED Act and simplify its main Features	Analyzing (K4)	CO5	5M
5	Explain the importance of MSME	Evaluating (K5)	CO5	5M
6	Classify the Enterprises in MSMED Act	Analyzing (K4)	CO5	5M



**Scheme of Evaluation of B. Tech III Year I Semester Assignment No. 4**

**Subject: Entrepreneurship and Innovation (19BCC5TH01)**

1. Definition of Project – 2 Marks , Explanation 3 Marks
2. Definition of Project Feasibility – 2 Marks , Explanation 3 Marks
3. Any five Project evaluations : 5 Marks
4. Definition of MSMED Act – 2 Marks , any three features 3 Marks
5. Explanation: 5 Marks
6. Any five classifications of Enterprises in MSMED Act : 5 Marks



Narasaraopeta Engineering College (Autonomous)  
Dept. of Mechanical Engineering, B. Tech III Year I Semester  
ENTREPRENEURSHIP AND INNOVATION (Common for Sections A & B)

Descriptive Test (Mid) No. 1 (for both Sections A & B)

Subject Code: 19BCC5TH01

Max. Marks: 25M

Date: 22.11.2021

Duration: 90 Min.

(Answer all questions and all questions carry equal marks)

S. No.	Question	Cognitive Level	CO	Marks
1	(a) Explain the concepts of entrepreneur and entrepreneurship	Understanding (K2)	CO1	5M
	(b) Outline the Importance of ethics and social responsibility in entrepreneurship	Understanding (K2)	CO1	5M
2	(a) What are the Characteristics of Creativity and explain them	Understanding (K2)	CO2	5M
	(b) Summarize the importance Innovation process	Understanding (K2)	CO2	5M
3	Define EDP and Summarize its objectives	Understanding (K2)	CO3	5M

Narasaraopeta Engineering College (Autonomous)  
Dept. of Mechanical Engineering, B. Tech III Year I Semester  
ENTREPRENEURSHIP AND INNOVATION (Common for Sections A & B)

Descriptive Test (Mid) No. 1 (for both Sections A & B)

Subject Code: 19BCC5TH01

Max. Marks: 25M

Date: 22.11.2021

Duration: 90 Min.

(Answer all questions and all questions carry equal marks)

S. No.	Question	Cognitive Level	CO	Marks
1	(a) Explain the concepts of entrepreneur and entrepreneurship	Understanding (K2)	CO1	5M
	(b) Outline the Importance of ethics and social responsibility in entrepreneurship	Understanding (K2)	CO1	5M
2	(a) What are the Characteristics of Creativity and explain them	Understanding (K2)	CO2	5M
	(b) Summarize the importance Innovation process	Understanding (K2)	CO2	5M
3	Define EDP and Summarize its objectives	Understanding (K2)	CO3	5M



**Scheme of Evaluation of B. Tech III Year I Semester Descriptive Test (Mid) No. 1**

**Subject: Entrepreneurship and Innovation (19BCC5TH01)**

1. a) For concept of entrepreneur : 2.5 Marks, For concept of entrepreneurship: 2.5 Marks  
b) Any five Importance of ethics and social responsibility: 5 Marks
2. a) Any three Characteristics of Creativity: 3 Marks  
Explanation: 2 Marks  
b) Any five Importance of Innovation process: 5 Marks
3. Definition 2 Marks, Any three objectives – 3 Marks



Narasaraopeta Engineering College (Autonomous)  
 Dept. of Mechanical Engineering, B. Tech III Year I Semester  
 ENTREPRENEURSHIP AND INNOVATION (Common for Sections A & B)  
Descriptive Test (Mid) No. 2 (for both Sections A & B)

Subject Code: 19BCC5TH01  
 Max. Marks: 25M

Date: 18.01.2022  
 Duration: 90 Min.

(Answer all questions and all questions carry equal marks)

S. No.	Question	Cognitive Level	CO	Marks
1	<b>Evaluate</b> the major problems involved in the organization of EDPs	Evaluating (K5)	CO3	5M
2	a) Explain the project in Project Management and <b>list</b> some of the examples	Analyzing (K4)	CO4	5M
	b) How to identify a project and <b>Identify</b> the Project Sources for generation of Ideas	Applying (K3)	CO4	5M
3	a) <b>Explain</b> the importance of MSME	Evaluating (K5)	CO5	5M
	b) Define sickness and <b>analyse</b> the Causes and remedies for sickness in small scale industry.	Analyzing (K4)	CO5	5M

Narasaraopeta Engineering College (Autonomous)  
 Dept. of Mechanical Engineering, B. Tech III Year I Semester  
 ENTREPRENEURSHIP AND INNOVATION (Common for Sections A & B)  
Descriptive Test (Mid) No. 2 (for both Sections A & B)

Subject Code: 19BCC5TH01  
 Max. Marks: 25M

Date: 18.01.2022  
 Duration: 90 Min.

(Answer all questions and all questions carry equal marks)

S. No.	Question	Cognitive Level	CO	Marks
1	<b>Evaluate</b> the major problems involved in the organization of EDPs	Evaluating (K5)	CO3	5M
2	a) Explain the project in Project Management and <b>list</b> some of the examples	Analyzing (K4)	CO4	5M
	b) How to identify a project and <b>Identify</b> the Project Sources for generation of Ideas	Applying (K3)	CO4	5M
3	a) <b>Explain</b> the importance of MSME	Evaluating (K5)	CO5	5M
	b) Define sickness and <b>analyse</b> the Causes and remedies for sickness in small scale industry.	Analyzing (K4)	CO5	5M



**Scheme of Evaluation of B. Tech III Year I Semester Descriptive Test (Mid) No. 2**

**Subject: Entrepreneurship and Innovation (19BCC5TH01)**

1. a) Any five evaluations involved in the organization of EDPs – 5 Marks
2. a) Any three examples (2 marks) with explanation of project in Project Management: 5 Marks  
b) Explanation – 2 marks, any 3 project sources 3 Marks
3. a) Explanation of importance of MSME: 5 Marks  
b) Definition 2 Marks, Any three Causes and remedies for sickness.– 3 Marks



NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)									
Under Graduate   2021-2022   III Year I Semester   B.Tech-ME Section A									
Assignment-I					Date: 04.10.2021				
19BCC5TH01 - Entrepreneurship and innovation									
S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
1	19471A0301	ARIKATLA RAGHU RAMI REDDY	3	1	5	4	1	4	9
2	19471A0302	BADDETI RAMBABU	1	1	5	2	1	3	8
3	19471A0303	BANDARU PRASANNA BABU	1	1	4	2	1	4	8
4	19471A0304	BOBBILI VISHNU VARDHAN REDDY	5	1	0	6	1	3	3
5	19471A0305	CHAVA ASHOK	5	1	5	6	1	0	5
6	19471A0306	CHIRUGURI KARUNAKAR	1	1	4	2	1	4	8
7	19471A0307	DURGAMPUDI MAHESH REDDY	5	1	4	6	1	0	4
8	19471A0308	GANGAVARAPU SRI CHANDRASEKHAR	1	1	4	2	1	4	8
9	19471A0309	GANNEPALLI RAVI	1	1	4	2	1	3	7
10	19471A0310	GANNEPALLII RAMESH	3	1	4	4	1	4	8
11	19471A0311	GONA VAMSI	3	1	5	4	1	4	9
12	19471A0312	GORANTLA ANIL	1	1	5	2	1	4	9
13	19471A0313	GUDE JAYANTH KUMAR	5	1	4	6	1	4	8
14	19471A0315	JANDHAYALA SANDLEYA	5	1	4	6	1	5	9
15	19471A0316	JANGA NAGENDRA BABU	5	1	5	6	1	5	10
16	19471A0317	JONNALAGADDA MADHU	5	1	4	6	1	4	8
17	19471A0318	KAKANI NAGENDRA BABU	3	1	5	4	1	0	5
18	19471A0319	KAMBAMPATI AJITHKUMAR	7	1	5	4	1	4	9
19	19471A0320	KIKKURU PRUDHVI YASHWANTH REDDY	3	1	5	4	1	5	10
20	19471A0321	KONDA JOHNY	1	1	4	2	1	0	4
21	19471A0322	LINGISETTY RAJASEKHAR	5	1	4	6	1	3	7
22	19471A0323	MAHANKALI RAKESH	1	1	4	2	1	4	8
23	19471A0324	MALLAVARAPU PRABHAKAR	1	1	4	2	1	1	5
24	19471A0326	MELAM STEPHEN WILLIAMS	3	1	4	4	1	5	9
25	19471A0327	NARENDRA BABU SADHE	5	1	5	6	1	5	10
26	19471A0328	NOORBASHA ANWAR BASHA	3	1	3	4	1	4	7
27	19471A0329	ONTERU VEERANJANEYULU	1	1	4	2	1	4	8
28	19471A0330	PATHAN AMEER KHAN	5	1	4	6	1	0	4
29	19471A0331	PEERLA HUSSIAN	1	1	5	2	1	4	9
30	19471A0333	PODILA GOPINADH	3	1	5	4	1	4	9
31	19471A0335	RAMAR SATISH KUMAR	3	1	5	4	1	0	5
32	19471A0336	SAVALAM MANI KUMAR	1	1	4	2	1	4	8
33	19471A0337	SHAIK JILANI	1	1	5	2	1	4	9
34	19471A0338	SHAIK MAHAMMAD BILAL	5	1	4	6	1	5	9
35	19471A0339	SHAIK MAHAMMAD RIYAZ	3	1	3	4	1	4	7
36	19471A0340	SHAIK SUBHANI	1	1	5	2	1	4	9
37	19471A0341	TALAKAYALA VINAY KUMAR	1	1	5	2	1	4	9
38	19471A0342	VADLAMUDI YASWANTH SAI	3	1	5	4	1	5	10
39	19471A0343	VEERLA KOTESWARA RAO	3	1	4	4	1	5	9
40	19471A0344	VEJARLA AVINASH	...	1	...	...	1	...	A





NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)									
Under Graduate   2021-2022   III Year I Semester   B.Tech-ME Section A									
Assignment-I					Date: 04.10.2021				
19BCC5TH01 - Entrepreneurship and innovation									
41	20475A0354	KOPPOLU BHANU PRASAD	...	1	...	...	1	...	A
42	20475A0355	CHOPPARA LAKSHMI SUMANTH	1	1	4	2	1	5	9
43	20475A0356	INDURI PRATHAP REDDY	3	1	4	4	1	4	8
44	20475A0357	INAGANTI NAGULMEERAVALI	3	1	4	4	1	4	8
45	20475A0358	BATTU JAGADEESH	3	1	4	4	1	5	9
46	20475A0359	VEMULA HEMANTH KUMAR	5	1	5	6	1	4	9
47	20475A0360	KAKARLAMUDI NAVEEN	3	1	5	4	1	4	9
48	20475A0361	KUMMARA PARAMESWARA RAO	5	1	4	6	1	4	8
49	20475A0362	BOKKA PRASANNA KUMAR	1	1	4	2	1	4	8
50	20475A0363	GANJI HASHWANTH PRAVEEN REDDY	5	1	5	6	1	5	10
51	20475A0364	URJANA SHANMUKHARAO	1	1	5	2	1	5	10
52	20475A0365	DAMERA SANTHOSH	5	1	4	6	1	5	9
53	20475A0366	MUVVA NAGA LAKSHMAIAH	3	1	4	4	1	4	8

Total no of Students :53

Total Present : 51

Total Absent : 2

  
 Signature of faculty  
 (Dr. P. Suresh Babu)

  
 Signature of HOD



NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)									
Under Graduate   2021-2022   III Year I Semester   B.Tech-ME Section B									
Assignment-I					Date: 04.10.2021				
19BCC5TH01 - Entrepreneurship and innovation									
S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
1	20475A0301	PUTTA RAJESH	1	1	5	2	1	4	9
2	20475A0302	LINGIREDDY GOPI REDDY	1	1	4	2	1	4	8
3	20475A0303	YELURI RAKESH	3	1	4	4	1	5	9
4	20475A0304	VANGAVOLU NAGA SESHU	5	1	5	6	1	5	10
5	20475A0305	GUNJI VENKATA BHASKAR	1	1	4	2	1	4	8
6	20475A0306	THAPPETA RADHAKRISHNA	1	1	5	2	1	4	9
7	20475A0307	EDEBOINA ASHOK	1	1	4	2	1	4	8
8	20475A0308	MARRI AJAY KUMAR	1	1	5	2	1	4	9
9	20475A0309	MADEM JAYANTH KUMAR	1	1	4	2	1	3	7
10	20475A0310	RAJABATHULA KISHORE	1	1	4	2	1	5	9
11	20475A0311	SHAIK SAMEER	5	1	4	6	1	4	8
12	20475A0312	SHAIK THUPAKULA MASTAN VALI	3	1	5	4	1	5	10
13	20475A0313	PARIMI GANESH	5	1	4	6	1	5	9
14	20475A0314	MUVVA VAMSI	5	1	4	6	1	5	9
15	20475A0315	RYALI M T SURYA PRAKASH	1	1	5	2	1	5	10
16	20475A0316	SHAIK DASTAGIRI	3	1	5	4	1	5	10
17	20475A0317	MANDA RAJA SEKHAR	5	1	4	6	1	5	9
18	20475A0318	DANDE VENKATA GOPAL	1	1	5	2	1	5	10
19	20475A0319	KOTA LAKSHMI VARAPRASAD	3	1	5	4	1	5	10
20	20475A0320	BALACHANDAR M	5	1	4	6	1	5	9
21	20475A0321	KUKKAMALLA NIKHIL KUMAR	5	1	5	6	1	5	10
22	20475A0322	PENUMALA KALYAN	1	1	5	2	1	4	9
23	20475A0323	KOTHAMSETTI ASHOK	...	...	...	...	...	...	A
24	20475A0324	NUNNA BALA NAVEEN	1	1	5	2	1	4	9
25	20475A0325	KOTHAMASU ANANTA KOTI SRIKRISHNA	3	1	4	4	1	4	8
26	20475A0326	NAGISETTY RAKESH	1	1	4	2	1	4	8
27	20475A0327	RAVURI SIVANJANEYULU	5	1	5	6	1	5	10
28	20475A0328	ANKEM NAGENDRA BABU	1	1	5	2	1	4	9
29	20475A0330	PARASA NAVEEN	3	1	5	4	1	5	10
30	20475A0331	DUPATI ANIL	3	1	4	4	1	5	9
31	20475A0332	SHAIK NARAVADA ALTHAF HUSSAIN	3	1	5	4	1	5	10
32	20475A0333	RAVURI ANIL	5	1	4	6	1	4	8
33	20475A0334	TELUKUTLA SIVAREDDY	5	1	4	6	1	4	8
34	20475A0335	KOTARU SAIRAGHU VAMSI	3	1	4	4	1	5	9
35	20475A0336	MIDDELA BAJIVALI	5	1	4	6	1	5	9
36	20475A0337	VATTIGORLA YOGANJANEYULU	3	1	5	4	1	4	9
37	20475A0338	GANTASALA GOPI CHAND	1	1	4	2	1	4	8
38	20475A0339	KOILADA PRADEEP	3	1	4	4	1	5	9
39	20475A0340	DASARI HEMAGURUNADH	3	1	4	4	1	4	8
40	20475A0341	JILABOINA KARUNAKAR	3	1	4	4	1	4	8




NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)										
Under Graduate   2021-2022   III Year I Semester   B.Tech-ME Section B										
Assignment-I					Date: 04.10.2021					
19BCC5TH01 - Entrepreneurship and innovation										
41	20475A0342	MALLAVARAPU JESUDASU	5	1	4	6	1	5	9	
42	20475A0343	VANGARA AYYAPPA	...	...	...	...	...	...	A	
43	20475A0344	YADARI RAJESH	5	1	4	6	1	5	9	
44	20475A0345	KASUKURTHI AKASH	3	1	5	4	1	5	10	
45	20475A0346	KANAPARTHI VENKATA KRISHNA	5	1	5	6	1	4	9	
46	20475A0347	SHAIK AMEER	...	...	...	...	...	...	A	
47	20475A0348	MEKA SAI VINAY	5	1	4	6	1	5	9	
48	20475A0349	AVVARU YUGANDHAR	5	1	4	6	1	5	9	
49	20475A0350	CHINTALAPUDI SRIRAM	3	1	4	4	1	4	8	
50	20475A0351	ILLA RATNAM RAJU	...	...	...	...	...	...	A	
51	20475A0352	GUNTAKA HARIKRISHNA REDDY	3	1	4	4	1	5	9	
52	20475A0353	GADIBOYINA NAGAIHA	1	1	4	2	1	3	7	

Total no of Students :52

Total Present : 48

Total Absent : 4

  
Signature of faculty  
(Dr. P. Suresh Babu)

  
Signature of HOD



NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)									
Under Graduate   2021-2022   III Year I Semester   B.Tech-ME Section A									
Assignment-II					Date: 01.11.2021				
19BCC5TH01 - Entrepreneurship and innovation									
S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
1	19471A0301	ARIKATLA RAGHU RAMI REDDY	3	2	5	4	2	5	10
2	19471A0302	BADDETI RAMBABU	5	2	4	6	2	4	8
3	19471A0303	BANDARU PRASANNA BABU	3	2	4	4	2	5	9
4	19471A0304	BOBBILI VISHNU VARDHAN REDDY	5	2	4	6	2	4	8
5	19471A0305	CHAVA ASHOK	5	2	4	6	2	5	9
6	19471A0306	CHIRUGURI KARUNAKAR	5	2	4	6	2	5	9
7	19471A0307	DURGAMPUDI MAHESH REDDY	5	2	4	6	2	4	8
8	19471A0308	GANGAVARAPU SRI CHANDRASEKHAR	1	2	4	2	2	4	8
9	19471A0309	GANNEPALLI RAVI	1	2	3	2	2	4	7
10	19471A0310	GANNEPALLII RAMESH	A	2	A	A	2	A	A
11	19471A0311	GONA VAMSI	3	2	3	4	2	4	7
12	19471A0312	GORANTLA ANIL	1	2	4	2	2	4	8
13	19471A0313	GUDE JAYANTH KUMAR	5	2	4	6	2	4	8
14	19471A0315	JANDHAYALA SANDLEYA	3	2	4	4	2	5	9
15	19471A0316	JANGA NAGENDRA BABU	3	2	5	4	2	5	10
16	19471A0317	JONNALAGADDA MADHU	5	2	3	6	2	4	7
17	19471A0318	KAKANI NAGENDRA BABU	5	2	4	6	2	5	9
18	19471A0319	KAMBAMPATI AJITHKUMAR	1	2	4	2	2	4	8
19	19471A0320	KIKKURU PRUDHVI YASHWANTH REDDY	3	2	5	4	2	5	10
20	19471A0321	KONDA JOHNY	1	2	4	2	2	4	8
21	19471A0322	LINGISETTY RAJASEKHAR	3	2	4	4	2	4	8
22	19471A0323	MAHANKALI RAKESH	1	2	3	2	2	4	7
23	19471A0324	MALLAVARAPU PRABHAKAR	3	2	4	4	2	5	9
24	19471A0326	MELAM STEPHEN WILLIAMS	1	2	5	2	2	5	10
25	19471A0327	NARENDRA BABU SADHE	5	2	4	6	2	5	9
26	19471A0328	NOORBASHA ANWAR BASHA	1	2	3	2	2	4	7
27	19471A0329	ONTERU VEERANJANEYULU	1	2	4	2	2	4	8



S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
28	19471A0330	PATHAN AMEER KHAN	3	2	4	4	2	4	8
29	19471A0331	PEERLA HUSSIAN	1	2	4	2	2	4	8
30	19471A0333	PODILA GOPINADH	5	2	4	6	2	4	8
31	19471A0335	RAMAR SATISH KUMAR	5	2	4	6	2	3	7
32	19471A0336	SAVALAM MANI KUMAR	5	2	4	6	2	4	8
33	19471A0337	SHAIK JILANI	1	2	4	2	2	4	8
34	19471A0338	SHAIK MAHAMMAD BILAL	3	2	5	4	2	5	10
35	19471A0339	SHAIK MAHAMMAD RIYAZ	3	2	4	4	2	5	9
36	19471A0340	SHAIK SUBHANI	1	2	4	2	2	4	8
37	19471A0341	TALAKAYALA VINAY KUMAR	A	2	A	A	2	A	A
38	19471A0342	VADLAMUDI YASWANTH SAI	1	2	4	2	2	4	8
39	19471A0343	VEERLA KOTESWARA RAO	3	2	5	4	2	4	9
40	19471A0344	VEJARLA AVINASH	1	2	3	2	2	4	7
41	20475A0354	KOPPOLU BHANU PRASAD	A	2	A	A	2	A	A
42	20475A0355	CHOPPARA LAKSHMI SUMANTH	A	2	A	A	2	A	A
43	20475A0356	INDURI PRATHAP REDDY	5	2	4	6	2	3	7
44	20475A0357	INAGANTI NAGULMEERAVALI	5	2	4	6	2	4	8
45	20475A0358	BATTU JAGADEESH	5	2	4	6	2	3	7
46	20475A0359	VEMULA HEMANTH KUMAR	5	2	4	6	2	4	8
47	20475A0360	KAKARLAMUDI NAVEEN	3	2	5	4	2	4	9
48	20475A0361	KUMMARA PARAMESWARA RAO	1	2	4	2	2	4	8
49	20475A0362	BOKKA PRASANNA KUMAR	3	2	5	4	2	4	9
50	20475A0363	GANJI HASHWANTH PRAVEEN REDDY	3	2	5	4	2	5	10
51	20475A0364	URJANA SHANMUKHARAO	3	2	4	4	2	5	9
52	20475A0365	DAMERA SANTHOSH	5	2	4	6	2	4	8
53	20475A0366	MUVVA NAGA LAKSHMAIAH	1	2	4	2	2	4	8

Total no of Students :53

Total Present : 49

Total Absent :4

Signature of faculty

Signature of HOD



NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)									
Under Graduate   2021-2022   III Year I Semester  B.Tech-ME Section B									
Assignment-II					Date: 01.11.2021				
19BCC5TH01 - Entrepreneurship and innovation									
S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
1	20475A0301	PUTTA RAJESH	3	2	4	4	2	4	8
2	20475A0302	LINGIREDDY GOPI REDDY	5	2	4	6	2	4	8
3	20475A0303	YELURI RAKESH	1	2	4	2	2	5	9
4	20475A0304	VANGAVOLU NAGA SESHU	1	2	4	2	2	5	9
5	20475A0305	GUNJI VENKATA BHASKAR	5	2	3	6	2	4	7
6	20475A0306	THAPPETA RADHAKRISHNA	1	2	4	2	2	5	9
7	20475A0307	EDEBOINA ASHOK	1	2	4	2	2	5	9
8	20475A0308	MARRI AJAY KUMAR	1	2	5	2	2	4	9
9	20475A0309	MADEM JAYANTH KUMAR	1	2	4	2	2	4	8
10	20475A0310	RAJABATHULA KISHORE	3	2	5	4	2	5	10
11	20475A0311	SHAIK SAMEER	3	2	4	4	2	4	8
12	20475A0312	SHAIK THUPAKULA MASTAN VALI	1	2	4	2	2	5	9
13	20475A0313	PARIMI GANESH	1	2	4	2	2	4	8
14	20475A0314	MUVVA VAMSI	5	2	3	6	2	4	7
15	20475A0315	RYALI M T SURYA PRAKASH	3	2	4	4	2	5	9
16	20475A0316	SHAIK DASTAGIRI	5	2	4	6	2	4	8
17	20475A0317	MANDA RAJA SEKHAR	5	2	4	6	2	4	8
18	20475A0318	DANDE VENKATA GOPAL	5	2	5	6	2	5	10
19	20475A0319	KOTA LAKSHMI VARAPRASAD	5	2	4	6	2	4	8
20	20475A0320	BALACHANDAR M	1	2	3	2	2	4	7
21	20475A0321	KUKKAMALLA NIKHIL KUMAR	5	2	5	6	2	4	9
22	20475A0322	PENUMALA KALYAN	3	2	4	4	2	5	9
23	20475A0323	KOTHAMSETTI ASHOK	1	2	4	2	2	4	8
24	20475A0324	NUNNA BALA NAVEEN	1	2	4	2	2	5	9
25	20475A0325	KOTHAMASU ANANTA KOTI SRIKRISHNA	3	2	4	4	2	5	9
26	20475A0326	NAGISETTY RAKESH	5	2	3	6	2	4	7
27	20475A0327	RAVURI SIVANJANEYULU	5	2	4	6	2	4	8



S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
28	20475A0328	ANKEM NAGENDRA BABU	1	2	4	2	2	5	9
29	20475A0330	PARASA NAVEEN	5	2	4	6	2	4	8
30	20475A0331	DUPATI ANIL	3	2	4	4	2	4	8
31	20475A0332	SHAIK NARAVADA ALTHAF HUSSAIN	5	2	4	6	2	3	7
32	20475A0333	RAVURI ANIL	5	2	5	6	2	4	9
33	20475A0334	TELUKUTLA SIVAREDDY	1	2	3	2	2	4	7
34	20475A0335	KOTARU SAIRAGHU VAMSI	5	2	4	6	2	4	8
35	20475A0336	MIDDELA BAJIVALI	3	2	5	4	2	5	10
36	20475A0337	VATTIGORLA YOGANJANEYULU	1	2	2	2	2	4	6
37	20475A0338	GANTASALA GOPI CHAND	3	2	4	4	2	5	9
38	20475A0339	KOILADA PRADEEP	5	2	3	6	2	4	7
39	20475A0340	DASARI HEMAGURUNADH	5	2	4	6	2	3	7
40	20475A0341	JILABOINA KARUNAKAR	3	2	4	4	2	4	8
41	20475A0342	MALLAVARAPU JESUDASU	5	2	4	6	2	4	8
42	20475A0343	VANGARA AYYAPPA	3	2	4	4	2	5	9
43	20475A0344	YADARI RAJESH	3	2	4	4	2	3	7
44	20475A0345	KASUKURTHI AKASH	3	2	4	4	2	5	9
45	20475A0346	KANAPARTHI VENKATA KRISHNA	A	2	A	A	2	A	A
46	20475A0347	SHAIK AMEER	3	2	3	4	2	4	7
47	20475A0348	MEKA SAI VINAY	3	2	5	4	2	5	10
48	20475A0349	AVVARU YUGANDHAR	1	2	4	2	2	4	8
49	20475A0350	CHINTALAPUDI SRIRAM	3	2	4	4	2	5	9
50	20475A0351	ILLA RATNAM RAJU	1	2	3	2	2	3	6
51	20475A0352	GUNTAKA HARIKRISHNA REDDY	1	2	4	2	2	5	9
52	20475A0353	GADIBOYINA NAGAI AH	3	2	4	4	2	4	8

Total no of Students :52

Total Present : 51

Total Absent : 1

  
Signature of faculty

  
Signature of HOD



NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS) : : NARASARAOPET

(R19) 2019 BATCH III B.TECH I SEM I MID EXAMINATION MARKS - AWARD LIST AUG - 2021

Branch : ME - A

Subject: Entrepreneurship and Innovation

Date: 22.11.21

Sl.No.	H.T.NO.	DESCRIPTIVE								OBJECTIVE	
		CO No.	1	1	2	2	3	-	Total Marks (25M)	Total Marks (20M)	Quiz-1 (10M)
		Max.Marks	5	5	5	5	5	-			
		Q.No.	1 (a)	1 (b)	2 (a)	2 (b)	3 (a)	3 (b)			
1	19471A0301		5	-	4	4	5	-	18	14	4
2	19471A0302		-	-	3	4	4	-	11	9	4
3	19471A0303		4	5	3	2	5	-	19	15	6
4	19471A0304		4	4	-	4	5	-	18	14	5
5	19471A0305		5	4	5	5	5	-	24	19	5
6	19471A0306		5	-	4	5	5	-	19	15	5
7	19471A0307		-	-	-	-	-	-	AB	AB	AB
8	19471A0308		4	4	5	5	4	-	23	18	4
9	19471A0309		3	3	3	2	4	-	15	12	3
10	19471A0310		-	-	-	-	-	-	AB	AB	AB
11	19471A0311		5	3	2	3	5	-	18	14	3
12	19471A0312		5	5	-	5	3	-	18	14	5
13	19471A0313		4	3	5	4	5	-	21	17	3
14	19471A0315		5	4	1	4	5	-	19	15	5
15	19471A0316		5	5	5	4	5	-	24	19	4
16	19471A0317		3	-	3	-	3	-	9	7	3
17	19471A0318		4	4	-	3		-	11	9	4
18	19471A0319		4	4	4	2	5	-	19	15	4
19	19471A0320		5	5	5	5	5	-	25	20	8
20	19471A0321		5	3	3	-	3	-	14	11	5
21	19471A0322		4	-	-	-	5	-	9	7	2
22	19471A0323		3	3	3	3		-	13	10	2
23	19471A0324		4	3	4	-	-	-	11	9	3
24	19471A0326		5	4	5	5	5	-	24	19	4
25	19471A0327		4	5	5	5	5	-	24	19	6
26	19471A0328		4	4	5	5	5	-	23	18	6
27	19471A0329		3	4	3	4	4	-	18	14	6
28	19471A0330		-	-	3	-	4	-	8	6	2
29	19471A0331		4	4	2	-	3	-	13	10	4
30	19471A0333		5	4	5	4	3	-	21	17	4
31	19471A0335		4	4	5	-	4	-	18	14	2
32	19471A0336		4	2	5	4	4	-	19	15	5



Sl.No.	H.T.NO.	DESCRIPTIVE									OBJECTIVE
		CO No.	1	1	2	2	3	-	Total Marks (25M)	Total Marks (20M)	Quiz-1 (10M)
		Max.Marks	5	5	5	5	5	-			
		Q.No.	1 (a)	1 (b)	2 (a)	2 (b)	3 (a)	3 (b)			
33	19471A0337		5	4	5	5	5	-	24	19	6
34	19471A0338		5	4	5	4	5	-	23	18	4
35	19471A0339		5	4	4	2	5	-	20	16	3
36	19471A0340		5	5	5	4	5	-	24	19	5
37	19471A0341		3	3	4	4	5	-	19	15	5
38	19471A0342		5	3	4	4	5	-	21	17	4
39	19471A0343		5	3	5	4	4	-	21	17	5
40	19471A0344		5	4	5	4	1	-	19	15	6
41	20475A0354		3	4	2	0	5	-	14	11	4
42	20475A0355		-	-	-	-	-	-	AB	AB	AB
43	20475A0356		4	5	5	5	5	-	24	19	5
44	20475A0357		4	4	4	2	4	-	18	14	4
45	20475A0358		4	4	4	3	5	-	20	16	5
46	20475A0359		3	-	4	-	5	-	13	10	4
47	20475A0360		4	5	5	5	5	-	24	19	4
48	20475A0361		5	5	4	4	5	-	23	18	3
49	20475A0362		4	5	4	5	5	-	23	18	3
50	20475A0363		5	4	5	5	5	-	24	19	5
51	20475A0364		5	4	5	5	5	-	24	19	5
52	20475A0365		-	-	-	-	-	-	AB	AB	AB
53	20475A0366		4	3	4	2	3	-	16	13	5

Dr. P. Pusek Bala  
Name of the Staff Member

  
Signature of the Staff Member

  
Signature of the HOD



NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS) : : NARASARAOPET

(R19) 2019 BATCH III B.TECH I SEM I MID EXAMINATION MARKS - AWARD LIST AUG - 2021

Branch : ME - B

Subject:Entrepreneurship and Innovation

Date:22.11.21

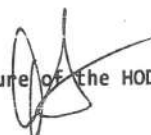
Sl.No.	H.T.NO.	DESCRIPTIVE									OBJECTIVE
		CO No.	1	1	2	2	3	-	Total Marks (25M)	Total Marks (20M)	Quiz-1 (10M)
		Max.Marks	5	5	5	5	5	-			
		Q.No.	1 (a)	1 (b)	2 (a)	2 (b)	3 (a)	3 (b)			
1	20475A0301		4	3	4	-	2	-	13	10	5
2	20475A0302		4	3	5	3	4	-	19	15	4
3	20475A0303		5	2	4	3	5	-	19	15	4
4	20475A0304		4	-	4	5	5	-	18	14	5
5	20475A0305		4	-	5	4	5	-	18	14	5
6	20475A0306		5	4	5	5	4	-	23	18	3
7	20475A0307		4	4	4	4	5	-	21	17	4
8	20475A0308		5	4	5	5	5	-	24	19	3
9	20475A0309		5	4	5	5	4	-	23	18	5
10	20475A0310		5	4	5	4	4	-	23	18	6
11	20475A0311		3	3	4	4	4	-	18	14	6
12	20475A0312		3	3	5	4	5	-	20	16	4
13	20475A0313		4	4	5	5	4	-	23	18	4
14	20475A0314		3	3	3	3	5	-	18	14	4
15	20475A0315		5	5	5	5	5	-	25	20	4
16	20475A0316		5	5	4	5	5	-	24	19	6
17	20475A0317		5	4	4	5	5	-	23	18	5
18	20475A0318		5	5	5	5	5	-	25	20	6
19	20475A0319		5	5	5	5	5	-	25	20	4
20	20475A0320		4	3	-	-	5	-	13	10	5
21	20475A0321		4	4	4	4	5	-	21	17	6
22	20475A0322		4	5	5	3	3	-	20	16	3
23	20475A0323		4	5	5	4	3	-	21	17	4
24	20475A0324		5	3	5	4	4	-	21	17	5
25	20475A0325		4	3	5	3	4	-	19	15	5
26	20475A0326		5	4	5	4	5	-	23	18	5
27	20475A0327		4	5	5	5	5	-	24	19	6
28	20475A0328		5	4	5	4	5	-	23	18	3
29	20475A0330		5	3	5	4	5	-	23	18	6
30	20475A0331		5	4	4	5	5	-	23	18	4
31	20475A0332		5	-	-	5	5	-	15	12	5
32	20475A0333		5	5	5	5	5	-	25	20	4



Sl.No.	H.T.NO.	DESCRIPTIVE									OBJECTIVE
		CO No.	1	1	2	2	3	-	Total Marks (25M)	Total Marks (20M)	Quiz-1 (10M)
		Max.Marks	5	5	5	5	5	-			
		Q.No.	1 (a)	1 (b)	2 (a)	2 (b)	3 (a)	3 (b)			
33	20475A0334		3	4	4	5	4	-	20	16	5
34	20475A0335		5	-	5	4	5	-	19	15	4
35	20475A0336		3	3	5	4	4	-	19	15	5
36	20475A0337		5	5	5	4	5	-	24	19	4
37	20475A0338		5	5	5	4	5	-	24	19	4
38	20475A0339		5	4	4	5	5	-	23	18	5
39	20475A0340		2	-	5	4		-	11	9	5
40	20475A0341		5	-	-	4	4	-	13	10	7
41	20475A0342		3	4	5	5	4	-	21	17	6
42	20475A0343		4	4	4	4	5	-	21	17	7
43	20475A0344		5	-	3	3	5	-	16	13	5
44	20475A0345		5	5	4	5	5	-	24	19	3
45	20475A0346		3	4	5	5	4	-	21	17	6
46	20475A0347		4	5	4	5	5	-	23	18	8
47	20475A0348		5	4	4	5	5	-	23	18	5
48	20475A0349		4	5	5	5	5	-	24	19	5
49	20475A0350		4	4	4	5	5	-	23	18	5
50	20475A0351		-	5	5	5	3	-	18	14	4
51	20475A0352		5	5	5	4	4	-	23	18	6
52	20475A0353		4	3	4	5	5	-	21	17	3

Dr. P. Suresh Babu  
Name of the Staff Member

  
Signature of the Staff Member

  
Signature of the HOD



NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)									
Under Graduate   2021-2022   III Year I Semester   B.Tech-ME Section A									
Assignment-III					Date: 13.12.2021				
19BCC5TH01 - Entrepreneurship and innovation									
S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
1	19471A0301	ARIKATLA RAGHU RAMI REDDY	1	3	4	2	3	4	8
2	19471A0302	BADDETI RAMBABU	—	—	—	—	—	—	A
3	19471A0303	BANDARU PRASANNA BABU	3	3	4	4	4	4	8
4	19471A0304	BOBBILI VISHNU VARDHAN REDDY	1	3	4	2	3	5	9
5	19471A0305	CHAVA ASHOK	1	3	5	2	3	4	9
6	19471A0306	CHIRUGURI KARUNAKAR	1	3	4	2	3	4	8
7	19471A0307	DURGAMPUDI MAHESH REDDY	1	3	4	2	3	3	7
8	19471A0308	GANGAVARAPU SRI CHANDRASEKHAR	3	3	4	4	4	5	9
9	19471A0309	GANNEPALLI RAVI	1	3	4	2	3	4	8
10	19471A0310	GANNEPALLII RAMESH	—	—	—	—	—	—	A
11	19471A0311	GONA VAMSI	5	4	4	6	4	4	8
12	19471A0312	GORANTLA ANIL	1	3	5	2	3	4	9
13	19471A0313	GUDE JAYANTH KUMAR	3	3	4	4	4	5	9
14	19471A0315	JANDHAYALA SANDLEYA	3	3	4	4	4	5	9
15	19471A0316	JANGA NAGENDRA BABU	3	3	5	4	4	5	10
16	19471A0317	JONNALAGADDA MADHU	—	—	—	—	—	—	A
17	19471A0318	KAKANI NAGENDRA BABU	1	3	5	2	3	4	9
18	19471A0319	KAMBAMPATI AJITHKUMAR	3	3	4	4		4	8
19	19471A0320	KIKKURU PRUDHVI YASHWANTH REDDY	1	3	5	2	3	5	10
20	19471A0321	KONDA JOHNY	3	3	4	4	4	5	9
21	19471A0322	LINGISETTY RAJASEKHAR	—	—	—	—	—	—	A
22	19471A0323	MAHANKALI RAKESH	1	3	4	2	3	3	7
23	19471A0324	MALLAVARAPU PRABHAKAR	1	3	4	2	3	4	8
24	19471A0326	MELAM STEPHEN WILLIAMS	1	3	4	2	3	4	8
25	19471A0327	NARENDRA BABU SADHE	3	3	4	4	4	4	8
26	19471A0328	NOORBASHA ANWAR BASHA	—	—	—	—	—	—	A
27	19471A0329	ONTERU VEERANJANEYULU	—	—	—	—	—	—	A



S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
28	19471A0330	PATHAN AMEER KHAN	1	3	4	2	3	3	7
29	19471A0331	PEERLA HUSSIAN	3	3	3	4	4	3	6
30	19471A0333	PODILA GOPINADH	3	3	4	4	4	5	9
31	19471A0335	RAMAR SATISH KUMAR	—	—	—	—	—	—	A
32	19471A0336	SAVALAM MANI KUMAR	5	4	4	6	4	4	8
33	19471A0337	SHAIK JILANI	3	3	3	4	4	4	7
34	19471A0338	SHAIK MAHAMMAD BILAL	3	3	5	4	4	5	10
35	19471A0339	SHAIK MAHAMMAD RIYAZ	1	3	4	2	3	3	7
36	19471A0340	SHAIK SUBHANI	3	3	4	4	4	5	9
37	19471A0341	TALAKAYALA VINAY KUMAR	—	—	—	—	—	—	A
38	19471A0342	VADLAMUDI YASWANTH SAI	1	3	4	2	3	4	8
39	19471A0343	VEERLA KOTESWARA RAO	1	3	5	2	3	3	8
40	19471A0344	VEJARLA AVINASH	3	3	4	4	4	5	9
41	20475A0354	KOPPOLU BHANU PRASAD	3	3	5	4	4	5	10
42	20475A0355	CHOPPARA LAKSHMI SUMANTH	—	—	—	—	—	—	A
43	20475A0356	INDURI PRATHAP REDDY	5	3	4	6	4	4	8
44	20475A0357	INAGANTI NAGULMEERAVALI	1	3	4	2	3	4	8
45	20475A0358	BATTU JAGADEESH	3	3	4	4	4	5	9
46	20475A0359	VEMULA HEMANTH KUMAR	3	3	5	4	4	5	10
47	20475A0360	KAKARLAMUDI NAVEEN	5	4	4	6	4	5	9
48	20475A0361	KUMMARA PARAMESWARA RAO	5	4	4	6	4	5	9
49	20475A0362	BOKKA PRASANNA KUMAR	3	3	4	4	4	4	8
50	20475A0363	GANJI HASHWANTH PRAVEEN REDDY	5	4	5	6	4	5	10
51	20475A0364	URJANA SHANMUKHARAO	1	3	5	2	3	4	9
52	20475A0365	DAMERA SANTHOSH	5	4	5	6	4	5	10
53	20475A0366	MUVVA NAGA LAKSHMAIAH	5	4	5	6	4	4	9

Total no of Students :53

Total Present : 44

Total Absent :9

*Dr. P. Suresh Babu*  
Name of the faculty

*[Signature]*  
Signature of faculty

Signature of HOD

*[Signature]*



NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)									
Under Graduate   2021-2022   III Year I Semester  B.Tech-ME Section A									
Assignment-IV					Date: 03.01.2022				
19BCC5TH01 - Entrepreneurship and innovation									
S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
1	19471A0301	ARIKATLA RAGHU RAMI REDDY	3	4	5	4	5	4	9
2	19471A0302	BADDETI RAMBABU	1	4	4	6	5	4	8
3	19471A0303	BANDARU PRASANNA BABU	1	4	5	2	4	4	9
4	19471A0304	BOBBILI VISHNU VARDHAN REDDY	--	--	--	--	--	--	A
5	19471A0305	CHAVA ASHOK	3	4	4	4	5	5	9
6	19471A0306	CHIRUGURI KARUNAKAR	--	--	--	--	--	--	A
7	19471A0307	DURGAMPUDI MAHESH REDDY	3	4	4	4	5	5	9
8	19471A0308	GANGAVARAPU SRI CHANDRASEKHAR	3	4	4	4	5	4	8
9	19471A0309	GANNEPALLI RAVI	3	4	3	4	5	4	7
10	19471A0310	GANNEPALLII RAMESH	5	5	4	6	5	4	8
11	19471A0311	GONA VAMSI	1	4	4	2	4	5	9
12	19471A0312	GORANTLA ANIL	3	4	5	4	5	4	9
13	19471A0313	GUDE JAYANTH KUMAR	3	4	5	4	5	4	9
14	19471A0315	JANDHAYALA SANDLEYA	1	4	4	2	4	4	8
15	19471A0316	JANGA NAGENDRA BABU	5	5	4	6	5	5	9
16	19471A0317	JONNALAGADDA MADHU	3	4	4	4	5	4	8
17	19471A0318	KAKANI NAGENDRA BABU	1	4	5	2	4	4	9
18	19471A0319	KAMBAMPATI AJITHKUMAR	5	5	4	6	5	5	9
19	19471A0320	KIKKURU PRUDHVI YASHWANTH REDDY	1	4	5	2	4	4	9
20	19471A0321	KONDA JOHNY	3	4	4	4	5	4	8
21	19471A0322	LINGISETTY RAJASEKHAR	5	5	4	6	5	4	8
22	19471A0323	MAHANKALI RAKESH	3	4	5	4	5	4	9
23	19471A0324	MALLAVARAPU PRABHAKAR	3	4	4	4	5	4	8
24	19471A0326	MELAM STEPHEN WILLIAMS	1	4	4	2	4	4	8
25	19471A0327	NARENDRA BABU SADHE	1	4	4	2	4	5	9
26	19471A0328	NOORBASHA ANWAR BASHA	1	4	4	2	4	4	8
27	19471A0329	ONTERU VEERANJANEYULU	1	4	4	2	4	4	8
28	19471A0330	PATHAN AMEER KHAN	3	4	4	4	5	4	8
29	19471A0331	PEERLA HUSSIAN	5	5	4	6	5	5	9
30	19471A0333	PODILA GOPINADH	5	5	4	6	5	5	9
31	19471A0335	RAMAR SATISH KUMAR	1	4	4	2	4	4	8
32	19471A0336	SAVALAM MANI KUMAR	3	4	4	4	5	4	8



S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
33	19471A0337	SHAIK JILANI	1	4	3	2	4	4	7
34	19471A0338	SHAIK MAHAMMAD BILAL	1	4	3	2	4	4	7
35	19471A0339	SHAIK MAHAMMAD RIYAZ	5	5	4	6	5	5	9
36	19471A0340	SHAIK SUBHANI	5	5	4	6	5	5	9
37	19471A0341	TALAKAYALA VINAY KUMAR	5	5	5	6	5	4	9
38	19471A0342	VADLAMUDI YASWANTH SAI	1	4	4	2	4	5	9
39	19471A0343	VEERLA KOTESWARA RAO	3	4	4	4	5	4	8
40	19471A0344	VEJARLA AVINASH	1	4	4	2	4	4	8
41	20475A0354	KOPPOLU BHANU PRASAD	1	4	5	2	4	4	9
42	20475A0355	CHOPPARA LAKSHMI SUMANTH	1	4	4	2	4	5	9
43	20475A0356	INDURI PRATHAP REDDY	5	5	4	6	5	4	8
44	20475A0357	INAGANTI NAGULMEERAVALI	3	4	4	4	5	4	8
45	20475A0358	BATTU JAGADEESH	3	4	5	4	5	4	9
46	20475A0359	VEMULA HEMANTH KUMAR	3	4	5	4	5	4	9
47	20475A0360	KAKARLAMUDI NAVEEN	1	4	4	2	4	4	8
48	20475A0361	KUMMARA PARAMESWARA RAO	5	5	4	6	5	5	9
49	20475A0362	BOKKA PRASANNA KUMAR	--	--	--	--	--	--	A
50	20475A0363	GANJI HASHWANTH PRAVEEN REDDY	1	4	4	2	4	5	9
51	20475A0364	URJANA SHANMUKHARAO	5	5	5	6	5	5	10
52	20475A0365	DAMERA SANTHOSH	5	5	4	6	5	4	8
53	20475A0366	MUVVA NAGA LAKSHMAIAH	5	5	4	6	5	3	7

Total no of Students : 53

Total Present : 50

Total Absent : 3

*Dr. P. Suresh Babu*  
Name of the faculty

*Ch*  
Signature of faculty

*[Signature]*  
Signature of HOD



NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)									
Under Graduate   2021-2022   III Year I Semester   B.Tech-ME Section B									
Assignment-IV					Date: 03.01.2022				
19BCC5TH01 - Entrepreneurship and innovation									
S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
1	20475A0301	PUTTA RAJESH	3	4	4	4	5	4	8
2	20475A0302	LINGIREDDY GOPI REDDY	3	4	3	4	5	5	8
3	20475A0303	YELURI RAKESH	5	5	4	6	5	5	9
4	20475A0304	VANGAVOLU NAGA SESHU	1	4	5	2	4	5	10
5	20475A0305	GUNJI VENKATA BHASKAR	3	4	5	4	5	4	9
6	20475A0306	THAPPETA RADHAKRISHNA	3	4	5	4	5	4	9
7	20475A0307	EDEBOINA ASHOK	1	4	4	2	4	4	8
8	20475A0308	MARRI AJAY KUMAR	1	4	5	2	4	4	9
9	20475A0309	MADEM JAYANTH KUMAR	3	4	4	4	5	5	9
10	20475A0310	RAJABATHULA KISHORE	5	5	4	6	5	5	9
11	20475A0311	SHAIK SAMEER	3	4	5	4	5	4	9
12	20475A0312	SHAIK THUPAKULA MASTAN VALI	3	4	4	4	5	4	8
13	20475A0313	PARIMI GANESH	1	4	4	2	4	5	9
14	20475A0314	MUVVA VAMSI	1	4	4	2	4	4	8
15	20475A0315	RYALI M T SURYA PRAKASH	5	4	4	6	4	4	8
16	20475A0316	SHAIK DASTAGIRI	1	4	4	2	4	5	9
17	20475A0317	MANDA RAJA SEKHAR	5	5	4	6	5	5	9
18	20475A0318	DANDE VENKATA GOPAL	5	5	4	6	5	4	8
19	20475A0319	KOTA LAKSHMI VARAPRASAD	5	5	5	6	5	4	9
20	20475A0320	BALACHANDAR M	1	4	4	2	4	4	8
21	20475A0321	KUKKAMALLA NIKHIL KUMAR	3	4	4	4	5	4	8
22	20475A0322	PENUMALA KALYAN	1	4	4	2	4	5	9
23	20475A0323	KOTHAMSETTI ASHOK	1	4	5	2	4	4	9
24	20475A0324	NUNNA BALA NAVEEN	1	4	4	2	4	4	8
25	20475A0325	KOTHAMASU ANANTA KOTI SRIKRISHNA	5	5	4	6	5	5	9
26	20475A0326	NAGISETTY RAKESH	3	4	4	4	5	5	9
27	20475A0327	RAVURI SIVANJANEYULU	3	4	5	4	5	4	9



S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
28	20475A0328	ANKEM NAGENDRA BABU	3	4	5	4	5	3	8
29	20475A0330	PARASA NAVEEN	1	4	4	2	4	5	9
30	20475A0331	DUPATI ANIL	5	5	4	6	5	5	9
31	20475A0332	SHAIK NARAVADA ALTHAF HUSSAIN	1	3	4	2	3	5	9
32	20475A0333	RAVURI ANIL	1	3	4	2	3	4	8
33	20475A0334	TELUKUTLA SIVAREDDY	1	3	4	2	3	3	7
34	20475A0335	KOTARU SAIRAGHU VAMSI	1	3	4	2	3	5	9
35	20475A0336	MIDDELA BAJIVALI	1	4	4	2	4	4	8
36	20475A0337	VATTIGORLA YOGANJANEYULU	5	5	5	6	5	3	8
37	20475A0338	GANTASALA GOPI CHAND	5	5	4	6	5	5	9
38	20475A0339	KOILADA PRADEEP	5	5	4	6	5	5	9
39	20475A0340	DASARI HEMAGURUNADH	1	4	4	2	4	4	8
40	20475A0341	JILABOINA KARUNAKAR	-	-	-	-	-	-	A
41	20475A0342	MALLAVARAPU JESUDASU	1	4	4	2	4	5	9
42	20475A0343	VANGARA AYYAPPA	3	4	4	4	5	5	9
43	20475A0344	YADARI RAJESH	1	4	4	2	4	3	7
44	20475A0345	KASUKURTHI AKASH	1	4	5	2	4	4	9
45	20475A0346	KANAPARTHI VENKATA KRISHNA	1	4	4	2	4	5	9
46	20475A0347	SHAIK AMEER	1	4	4	2	4	5	9
47	20475A0348	MEKA SAI VINAY	3	4	4	4	5	5	9
48	20475A0349	AVVARU YUGANDHAR	1	4	4	2	4	5	9
49	20475A0350	CHINTALAPUDI SRIRAM	1	4	5	2	4	3	8
50	20475A0351	ILLA RATNAM RAJU	1	4	4	2	4	5	9
51	20475A0352	GUNTAKA HARIKRISHNA REDDY	3	4	4	4	5	4	8
52	20475A0353	GADIBOYINA NAGIAH	1	4	4	2	4	3	7

Total no of Students :52

Total Present : 51

Total Absent : 1

Dr. A. Suresh Babu  
Name of the faculty

  
Signature of faculty

  
Signature of HOD



NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)									
Under Graduate   2021-2022   III Year I Semester   B.Tech-ME Section B									
Assignment-III					Date: 13.12.2021				
19BCC5TH01 - Entrepreneurship and innovation									
S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
1	20475A0301	PUTTA RAJESH	5	4	4	6	4	5	9
2	20475A0302	LINGIREDDY GOPI REDDY	1	3	4	2	3	5	9
3	20475A0303	YELURI RAKESH	1	3	5	2	3	4	9
4	20475A0304	VANGAVOLU NAGA SESHU	5	4	5	6	4	5	10
5	20475A0305	GUNJI VENKATA BHASKAR	3	3	4	4	4	5	9
6	20475A0306	THAPPETA RADHAKRISHNA	3	3	5	4	4	5	10
7	20475A0307	EDEBOINA ASHOK	5	4	4	6	4	4	8
8	20475A0308	MARRI AJAY KUMAR	3	3	4	4	4	4	8
9	20475A0309	MADEM JAYANTH KUMAR	3	3	4	4	4	5	9
10	20475A0310	RAJABATHULA KISHORE	1	3	5	2	3	4	9
11	20475A0311	SHAIK SAMEER	5	4	5	6	4	4	9
12	20475A0312	SHAIK THUPAKULA MASTAN VALI	1	3	4	2		4	8
13	20475A0313	PARIMI GANESH	3	3	4	4	4	5	9
14	20475A0314	MUVVA VAMSI	5	4	4	6	4	4	8
15	20475A0315	RYALI M T SURYA PRAKASH	5	4	4	6	4	5	9
16	20475A0316	SHAIK DASTAGIRI	3	3	5	4	3	5	10
17	20475A0317	MANDA RAJA SEKHAR	1	3	4	2	3	5	9
18	20475A0318	DANDE VENKATA GOPAL	3	3	5	4	3	5	10
19	20475A0319	KOTA LAKSHMI VARAPRASAD	–	–	–	–	–	–	A
20	20475A0320	BALACHANDAR M	3	3	4	4	4	5	9
21	20475A0321	KUKKAMALLA NIKHIL KUMAR	5	4	5	6	4	4	9
22	20475A0322	PENUMALA KALYAN	1	3	4	2	3	4	8
23	20475A0323	KOTHAMSETTI ASHOK	3		4	4	4	5	9
24	20475A0324	NUNNA BALA NAVEEN	5	4	4	6	4	5	9
25	20475A0325	KOTHAMASU ANANTA KOTI SRIKRISHNA	5	4	4	6	4	4	8
26	20475A0326	NAGISETTY RAKESH	3	3	4	4	4	4	8
27	20475A0327	RAVURI SIVANJANEYULU	3	3	5	4	4	5	10



S. No.	Roll No	Name	Q.NO	CO	MARKS	Q.NO	CO	MARKS	Total
28	20475A0328	ANKEM NAGENDRA BABU	1	3	4	2	3	4	8
29	20475A0330	PARASA NAVEEN	5	4	5	6	4	5	10
30	20475A0331	DUPATI ANIL	3	3	5	4	4	5	10
31	20475A0332	SHAIK NARAVADA ALTHAF HUSSAIN	1	3	4	2	3	4	8
32	20475A0333	RAVURI ANIL	1	3	4	2	3	4	8
33	20475A0334	TELUKUTLA SIVAREDDY	1	3	4	2	3	4	8
34	20475A0335	KOTARU SAIRAGHU VAMSI	1	3	4	2	3	5	9
35	20475A0336	MIDDELA BAJIVALI	3	3	4	4	4	4	8
36	20475A0337	VATTIGORLA YOGANJANEYULU	1	3	4	2	3	4	8
37	20475A0338	GANTASALA GOPI CHAND	1	3	4	2	3	4	8
38	20475A0339	KOILADA PRADEEP	5	4	4	6	4	5	9
39	20475A0340	DASARI HEMAGURUNADH	1	3	5	2	3	4	9
40	20475A0341	JILABOINA KARUNAKAR	5	4	5	6	4	4	9
41	20475A0342	MALLAVARAPU JESUDASU	3	3	4	4	4	4	8
42	20475A0343	VANGARA AYYAPPA	5	4	4	6	4	5	9
43	20475A0344	YADARI RAJESH	1	3	4	2	3	4	8
44	20475A0345	KASUKURTHI AKASH	3	3	4	4	4	5	9
45	20475A0346	KANAPARTHI VENKATA KRISHNA	3	3	5	4	4	4	9
46	20475A0347	SHAIK AMEER	-	-	-	-	-	-	A
47	20475A0348	MEKA SAI VINAY	5	4	4	6	4	4	8
48	20475A0349	AVVARU YUGANDHAR	3	3	4	4	4	5	9
49	20475A0350	CHINTALAPUDI SRIRAM	5	4	5	6	4	4	9
50	20475A0351	ILLA RATNAM RAJU	-	-	-	-	-	-	A
51	20475A0352	GUNTAKA HARIKRISHNA REDDY	1	3	4	2	3	4	8
52	20475A0353	GADIBOYINA NAGAIAH	5	4	4	6	4	5	9

Total no of Students :52

Total Present : 49

Total Absent : 3

  
Name of the faculty

  
Signature of faculty

  
Signature of HOD



**NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS) : : NARASARAOPET**

**(R19) 2019 BATCH III B.TECH I SEM II MID EXAMINATION MARKS - AWARD LIST Jan - 2021**

**Branch : ME - A**

**Subject:Entrepreneurship and Innovation**

**Date:27.01.2022**


Sl.No.	H.T.NO.	DESCRIPTIVE									OBJECTIVE
		CO No.	3	4	4	5	5	-	Total Marks (25M)	Total Marks (20M)	Quiz-1 (10M)
		Max.Marks	5	5	5	5	5	-			
		Q.No.	1 (a)	2 (a)	2 (b)	3 (a)	3 (b)	-			
1	19471A0301		3	3	5	4	5	-	20	16	3
2	19471A0302		4	2	5	4	5	-	20	16	4
3	19471A0303		4	4	5	5	5	-	23	18	4
4	19471A0304		4	1	-	5	5	-	15	12	3
5	19471A0305		5	5	5	5	5	-	25	20	7
6	19471A0306		4	-	-	5	5	-	14	11	3
7	19471A0307		4	-	5	5	5	-	19	15	4
8	19471A0308		4	4	3	4	4	-	19	15	3
9	19471A0309		3	2	5	4	4	-	18	14	2
10	19471A0310		5	1	5	5	5	-	21	17	1
11	19471A0311		2	3	5	4	4	-	18	14	2
12	19471A0312		2	4	5	4	5	-	20	16	4
13	19471A0313		3	4	5	4	5	-	21	17	4
14	19471A0315		3	2	5	4	5	-	19	15	3
15	19471A0316		5	5	5	5	5	-	25	20	3
16	19471A0317		2	1	2	-	-	-	5	4	2
17	19471A0318		4	5	4	1		-	14	11	2
18	19471A0319		5	5	5	4	2	-	21	17	4
19	19471A0320		5	5	5	5	5	-	25	20	5
20	19471A0321		5	3	5	5	4	-	23	18	3
21	19471A0322		4	3	3	5		-	15	12	1
22	19471A0323		4	2	3	5	1	-	15	12	4
23	19471A0324		3	5	4	1		-	13	10	3
24	19471A0326		5	5	5	5	5	-	25	20	4
25	19471A0327		3	5	5	5	2	-	20	16	3
26	19471A0328		5	5	5	5	5	-	25	20	5
27	19471A0329		4	1	5	5	5	-	20	16	4
28	19471A0330		3	5	4	2		-	14	11	3
29	19471A0331		3	4	5	5	2	-	19	15	3
30	19471A0333		5	5	5	5	5	-	25	20	5
31	19471A0335		3	3	5	4	5	-	20	16	1
32	19471A0336		5	3	5	5	5	-	23	18	3



Sl.No.	H.T.NO.	DESCRIPTIVE									OBJECTIVE
		CO No.	3	4	4	5	5	-	Total Marks (25M)	Total Marks (20M)	Quiz-1 (10M)
		Max.Marks	5	5	5	5	5	-			
		Q.No.	1 (a)	2 (a)	2 (b)	3 (a)	3 (b)	-			
33	19471A0337		3	3	5	4	5	-	20	16	2
34	19471A0338		5	5	5	5	5	-	25	20	4
35	19471A0339		5	3	5	5	5	-	23	18	5
36	19471A0340		4	3	5	4	5	-	21	17	4
37	19471A0341		3	4	5	4	5	-	21	17	3
38	19471A0342		5	4	5	5	5	-	24	19	4
39	19471A0343		4	5	5	5	5	-	24	19	3
40	19471A0344		5	5	5	5	5	-	25	20	4
41	20475A0354		2	4	5	4	5	-	20	16	3
42	20475A0355		5	5	5	5	3	-	23	18	5
43	20475A0356		4	4	4	5	4	-	21	17	5
44	20475A0357		5	5	4	4	1	-	19	15	3
45	20475A0358		5	5	4	4	3	-	21	17	2
46	20475A0359		5	4	5	5	5	-	24	19	3
47	20475A0360		5	5	5	5	5	-	25	20	5
48	20475A0361		5	5	5	3	4	-	23	18	4
49	20475A0362		4	5	5	5	2	-	21	17	2
50	20475A0363		5	5	5	5	5	-	25	20	4
51	20475A0364		5	5	4	5	5	-	24	19	6
52	20475A0365		5	4	5	5	4	-	23	18	3
53	20475A0366		4	5	5	5	2	-	21	17	4

  
Name of the Staff Member

  
Signature of the Staff Member

  
Signature of the HOD



**NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS) : : NARASARAOPET**

**(R19) 2019 BATCH III B.TECH I SEM II MID EXAMINATION MARKS - AWARD LIST Jan - 2021**

**Branch : ME - B**

**Subject:Entrepreneurship and Innovation**

**Date:27.01.2022**

Sl.No.	H.T.NO.	DESCRIPTIVE									OBJECTIVE
		CO No.	3	4	4	5	5	-	Total Marks (25M)	Total Marks (20M)	Quiz-1 (10M)
		Max.Marks	5	5	5	5	5	-			
		Q.No.	1 (a)	2 (a)	2 (b)	3 (a)	3 (b)	-			
1	20475A0301		4	5	4	3		-	16	13	6
2	20475A0302		5	5	5	4	2	-	21	17	5
3	20475A0303		4	4	5	4	3	-	20	16	4
4	20475A0304		5	5	5	4	3	-	22	18	4
5	20475A0305		4	4	4	4	4	-	20	16	5
6	20475A0306		5	5	5	5	5	-	25	20	4
7	20475A0307		5	5	5	5	3	-	23	18	6
8	20475A0308		5	5	5	5	5	-	25	20	4
9	20475A0309		4	5	4	5	3	-	21	17	5
10	20475A0310		5	4	5	4	3	-	21	17	4
11	20475A0311		4	5	4	5	2	-	20	16	5
12	20475A0312		5	5	5	4		-	19	15	4
13	20475A0313			5	5	5	5	-	20	16	1
14	20475A0314		4	4	4	3	2	-	17	14	1
15	20475A0315		5	5	5	4	4	-	23	18	6
16	20475A0316		4	5	5	5	5	-	24	19	4
17	20475A0317		5	5	4	4	5	-	23	18	3
18	20475A0318		5	5	5	5	5	-	25	20	6
19	20475A0319		4	4	5	4	5	-	22	18	2
20	20475A0320		4	4	4	4	2	-	18	14	4
21	20475A0321		5	4	5	4	5	-	23	18	5
22	20475A0322		4	5	5	5	4	-	22	18	4
23	20475A0323		5	5	5	4	4	-	22	18	3
24	20475A0324		4		5	5	5	-	19	15	5
25	20475A0325		5	5	5	5	1	-	21	17	5
26	20475A0326		2	5	5	5	5	-	22	18	5
27	20475A0327		5	5	5	4	5	-	24	19	4
28	20475A0328		5	5	4	5	5	-	24	19	5
29	20475A0330		5	4	4	5	5	-	23	18	3
30	20475A0331		5	5	5	4	4	-	23	18	5
31	20475A0332		3	3	3	4	2	-	15	12	5
32	20475A0333		4	5	5	4	4	-	22	18	6



Sl.No.	H.T.NO.	DESCRIPTIVE									OBJECTIVE
		CO No.	3	4	4	5	5	-	Total Marks (25M)	Total Marks (20M)	Quiz-1 (10M)
		Max.Marks	5	5	5	5	5	-			
		Q.No.	1 (a)	2 (a)	2 (b)	3 (a)	3 (b)	-			
33	20475A0334		4	4	4	4	5	-	21	17	4
34	20475A0335		5	5	3	5	4	-	22	18	4
35	20475A0336		3	5	5	5	2	-	21	17	4
36	20475A0337		4	5	4	5	2	-	20	16	4
37	20475A0338		5	5	5	5	2	-	22	18	6
38	20475A0339		4	4	4	5	2	-	19	15	6
39	20475A0340		4	4	4	4		-	16	13	3
40	20475A0341		4	5	5	3		-	17	14	4
41	20475A0342		5	5	5	5		-	20	16	4
42	20475A0343		2	5	5	5	5	-	22	18	4
43	20475A0344		4	4	4	4	3	-	19	15	6
44	20475A0345		4	4	5	5	5	-	23	18	2
45	20475A0346		4	4	4	4	2	-	18	14	4
46	20475A0347		5	5	5	5	5	-	25	20	3
47	20475A0348		5	4	4	5	5	-	23	18	5
48	20475A0349		4	5	5	5	4	-	23	18	6
49	20475A0350		5	5	5	4	5	-	24	19	5
50	20475A0351		5	5	4	4	4	-	22	18	2
51	20475A0352		4	4	4	3	4	-	20	16	2
52	20475A0353		5	5	4	4	4	-	22	18	6

Dr. P. Suresh Babu  
Name of the Staff Member

  
Signature of the Staff Member

  
Signature of the HOD





**NARASARAOPETA**  
**ENGINEERING COLLEGE**  
(AUTONOMOUS)

**DEPARTMENT OF MECHANICAL ENGINEERING**

# **UNIT WISE IMPORTANT QUESTIONS**



## Unit wise Sample assessment questions

### COURSE OUTCOMES: The course content enables students to:

- Creating awareness among the students about the significance of entrepreneurship and its social relevance.
- Imparting knowledge to the students on institutional support available to start a business venture
- To understand the significance of entrepreneurial training in the development of new and existing entrepreneurs

S. N O	QUESTION	KNOWLEDGE LEVEL	CO
<b>UNIT I</b>			
1	<b>Explain</b> the concept of entrepreneur and entrepreneurship	Evaluating (K5)	CO1
2	<b>List</b> the characteristics of entrepreneur	Analyzing (K4)	CO1
3	How to <b>Justify</b> the Importance of ethics and social responsibility in entrepreneurship	Analyzing (K5)	CO1
<b>UNIT 2</b>			
1	What is the meaning and concept of creativity and explain by <b>make use of</b> two examples	Applying (K3)	CO2
2	<b>Explain</b> the Creativity Process and what factors affecting creativity	Evaluating (K5)	CO2
3	Evaluate the importance Innovation process	Evaluating (K5)	CO2
4	<b>Distinguish</b> the Creativity and Innovation.	Analyzing (K4)	CO2
<b>UNIT 3</b>			
1	<b>Develop</b> the designing of training Programme to inculcate Entrepreneurial Spirit	Applying (K3)	CO3
2	<b>Explain</b> the process of Entrepreneurship Development Programme (EDP)	Evaluating (K5)	CO3
3	What is the need of EDP and <b>list</b> the objectives of EDP	Analyzing (K4)	CO3
4	Examine the phases and evolution on EDP's existing and new Entrepreneurs.	Analyzing (K4)	CO3
<b>UNIT 4</b>			
1	What do you mean a project and explain how to <b>identify</b> a Project	Applying (K3)	CO4
2	Summarize the sources of new Ideas and <b>list</b> the methods of generating ideas	Analyzing (K4)	CO4
3	<b>Explain</b> how to select a Project and write its Project Feasibility Study	Evaluating (K5)	CO4
4	What is the Project evaluation and explain the Investment Appraisal Techniques of PBP& ARR by <b>make use of</b> example	Applying (K3)	CO4
5	<b>Analyze</b> the Investment Appraisal Techniques of NPV, IRR & PI	Analyzing (K4)	CO4



## UNIT 5

1	What is MSME's Development Act 2006 and <b>list</b> its objectives and main features	Analyzing (K4)	CO5
2	<b>Classify</b> the enterprises on the basis of investment and equipment costs	Analyzing (K4)	CO5
3	<b>Explain</b> the growth strategies of a Firm	Evaluating (K5)	CO5
4	What is Sick Industrial Company and <b>list</b> the internal and external reasons and their remedies for sick ness.	Analyzing (K4)	CO5



**DEPARTMENT OF MECHANICAL ENGINEERING**

**PREVIOUS QUESTION  
PAPERS**





# NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)

## Model Question Paper

R19 B.Tech 3 Year 1 Semester Regular Examinations, Dec 2021

Subject Code: 19BCC5TH01

Max. Marks: 60

### ENTREPRENEURSHIP AND INNOVATION

Branch: ME

Time: 3 Hours

Program: B.Tech

Note: Answer all **FIVE** Questions

All Questions Carry Equal Marks (5 x 12 = 60M)

- 
1. A) i) List the characteristics of entrepreneur [6M]  
ii) How to Justify the Importance of ethics and social responsibility in entrepreneurship [6M]  
OR  
B) i) Explain the concept of entrepreneur and entrepreneurship [6M]  
ii) Categorize the types of entrepreneurs [6M]
2. A) i) Evaluate the importance Innovation process [6M]  
ii) What is the meaning and concept of creativity and explain by make use of two examples [6M]  
OR  
B) i) Explain the Creativity Process and what factors affecting creativity [6M]  
ii) Distinguish the Creativity and Innovation. [6M]
3. A) i) Explain the process of Entrepreneurship Development Programme (EDP) [6M]  
ii) Examine the phases and evolution on EDP's existing and new Entrepreneurs. [6M]  
OR  
B) i) Develop the designing of training Programme to inculcate Entrepreneurial Spirit [6M]  
ii) What is the need of EDP and list the objectives of EDP [6M]
4. A) i) Explain how to select a Project and write its Project Feasibility Study [6M]  
ii) Summarize the sources of new Ideas and list the methods of generating ideas [6M]  
OR  
B) i) What do you mean a project and explain how to identify a Project [6M]  
ii) What is the Project evaluation and explain the Investment Appraisal Techniques of PBP& ARR by make use of example [6M]
5. A) i) Explain the growth strategies of a Firm [6M]  
ii) What is MSME's Development Act 2006 and list its objectives and main features [6M]  
OR  
B) i) Classify the enterprises on the basis of investment and equipment costs [6M]  
ii) What is Sick Industrial Company and list the internal and external reasons and their remedies for sick ness. [6M]



**III B.Tech I Semester Regular/Supple, Examinations**

Sub Code: 19BCC5TH01    Subject Name: **ENTREPRENEURSHIP AND INNOVATION**  
(ME)

**MODEL PAPER-I**

Time: 3 hours

Max. Marks: 60

Note: Answer All **FIVE** Questions.  
All Questions Carry Equal Marks (5 X 12 = 60M)

Q. No.	QUESTIONS	KL	CO	Marks
1	<b>Unit-I</b>			
	a i) List the characteristics of entrepreneur	K4	CO1	[6M]
	ii) How to Justify the Importance of ethics and social responsibility in entrepreneurship	K5	CO1	[6M]
	<b>OR</b>			
	b i) Explain the concept of entrepreneur and entrepreneurship	K5	CO1	[6M]
	ii) Categorize the types of entrepreneurs	K4	CO1	[6M]
2	<b>Unit-II</b>			
	a i) Evaluate the importance Innovation process	K5	CO2	[6M]
	ii) What is the meaning and concept of creativity and explain by make use of two examples	K5	CO2	[6M]
	<b>OR</b>			
	a i) Explain the Creativity Process and what factors affecting creativity	K5	CO2	[6M]
	ii) Distinguish the Creativity and Innovation	K4	CO2	[6M]
3	<b>Unit-III</b>			
	a i) Explain the process of Entrepreneurship Development Programme (EDP)	K5	CO3	[6M]
	ii) Examine the phases and evolution on EDP's existing and new Entrepreneurs.	K4	CO3	[6M]
	<b>OR</b>			
	b i) Develop the designing of training Programme to inculcate Entrepreneurial Spirit	K3	CO3	[6M]
	ii) What is the need of EDP and list the objectives of EDP	K4	CO3	[6M]
4	<b>Unit-IV</b>			
	a i) Explain how to select a Project and write its Project Feasibility Study	K5	CO4	[6M]
	ii) Summarize the sources of new Ideas and list the methods of generating ideas	K4	CO4	[6M]
	<b>OR</b>			
	b i) What do you mean a project and explain how to identify a Project	K5	CO4	[6M]
	ii) What is the Project evaluation and explain the Investment Appraisal Techniques of PBP& ARR by make use of example	K5	CO4	[6M]



Unit-V					
5	a	i) Explain the growth strategies of a Firm	K5	CO5	[6M]
		ii) What is MSME's Development Act 2006 and list its objectives and main features	K4	CO5	[6M]
	<b>OR</b>				
	b	i) Classify the enterprises on the basis of investment and equipment costs	K4	CO5	[6M]
		ii) What is Sick Industrial Company and list the internal and external reasons and their remedies for sick ness.	K4	CO5	[6M]





# NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)

## III B.Tech I Semester Regular/Supple Examinations

Sub Code: 19BCC5TH01 Subject Name: ENTREPRENEURSHIP AND INNOVATION  
(ME)

### MODEL PAPER-II

Time: 3 hours

Max. Marks: 60

Note: Answer All FIVE Questions.  
All Questions Carry Equal Marks (5 X 12 = 60M)

Q.No.		QUESTIONS	KL	CO	Marks
1	UNIT-I				
	a	i) Explain the concept of entrepreneur and entrepreneurship	K5	CO1	[6M]
		ii) Classify and explain the types of entrepreneurs		CO1	[6M]
	OR				
	b	i) List the characteristics of entrepreneur	K4	CO1	[6M]
		ii) Explain the Importance of ethics in entrepreneurship	K5	CO1	[6M]
2	UNIT-II				
	a	i) Judge the importance Innovation process	K5	CO2	[6M]
		ii) List the factors affecting creativity process	K5	CO2	[6M]
	OR				
	b	i) Explain the concept of creativity by make use of two examples	K4	CO2	[6M]
		ii) Distinguish the Creativity and Innovation.	K5	CO2	[6M]
3	UNIT-III				
	a	i) What is Entrepreneurship Development Programme (EDP) and explain in details.	K5	CO3	[6M]
		ii) List the objectives of EDP and its need.	K5	CO3	[6M]
	OR				
	b	i) Design a training Programme to inculcate Entrepreneurial Spirit	K5	CO3	[6M]
		ii) Explain the phases and evolution of Entrepreneurship Development Programme	K5	CO3	[6M]
4	UNIT-IV				
	a	i) What are the sources of new Ideas and list the methods of generating ideas	K5	CO4	[6M]
		ii) Explain the investment appraisal techniques of PBP& ARR by make use of example	K5	CO4	[6M]
	OR				
	b	i) How to select a Project and explain its Project Feasibility Study	K4	CO4	[6M]
		ii) Analyse the Investment Appraisal Techniques of NPV, IRR & PI	K5	CO4	[6M]
UNIT-V					



5	a	i) What is an enterprises and Classify them on the basis of investment and equipment costs	K5	CO5	[6M]
		ii) List the internal and external reasons for the sickness of a company and write their remedies for sick ness	K4	CO5	[6M]
	<b>OR</b>				
	b	i) What is the growth strategies of a Firm and explain in detail	K5	CO5	[6M]
		ii) List its objectives of MSME's and its main features	K5	CO5	[6M]



**III B.Tech I Semester Regular Examinations, February-2022**

Sub Code:19BCC5TH01 ENTREPRENEURSHIP AND INNOVATION

Time: 3 hours (Common to CE, ME, ECE) Max. Marks: 60

Note: Answer All FIVE Questions.

All Questions Carry Equal Marks (5X12=60M)

Q.No	Questions	KL	CO	M
<b>Unit-I</b>				
1	a i) Explain the characteristics of entrepreneurs	K2	C01	6M
	ii) Discuss the role of entrepreneurship in Economic Development	K2	C01	6M
	<b>OR</b>			
	b i) Discuss the Social Responsibilities of Entrepreneur	K2	C01	6M
	ii) Outline the Financial Support of Commercial Banks to entrepreneurship	K2	C01	6M
<b>Unit-II</b>				
2	a Discuss the steps in creativity process	K6	C02	12M
	<b>OR</b>			
	b i) Explain the factors affecting creativity	K6	C02	6M
	ii) Discuss the importance of innovation	K6	C02	6M
<b>Unit-III</b>				
3	a i) Discuss the objectives of EDPs	K6	C03	6M
	ii) Explain the need for training for entrepreneurs	K6	C03	6M
	<b>OR</b>			
	b i) Discuss the phases of EDP for new entrepreneurs	K6	C03	6M
	ii) Develop and appropriate training programme to entrepreneurial spirit	K6	C03	6M
<b>Unit-IV</b>				
4	a i) Explain the meaning of a project	K5	C04	6M
	ii) Discuss the sources of new ideas.	K5	C04	6M
	<b>OR</b>			
	b i) Evaluate project feasibility study	K5	C04	6M
	ii) Outline project evaluation techniques	K5	C04	6M
<b>Unit-V</b>				
5	a i) Explain the meaning and definition of small and micro entrepreneurs	K4	C05	6M
	ii) Discuss the importance of small and micro enterprises	K4	C05	6M
	<b>OR</b>			
	b i) Analyze the causes of sickness in small business and suggest remedies	K4	C05	6M
	ii) Outline the factors influencing growth of small and micro entrepreneurs	K4	C05	6M

KL: Knowledge Level CO: Course Outcome M: Marks\*\*\*



**NARASARAOPETA ENGINEERING COLLEGE, NARASARAOPET**

**(AUTONOMOUS)**

**III B.Tech I Semester Regular Examinations, February – 2022**

**Entrepreneurship and Innovation**

**(CE, ME, ECE)**

**Subject code: 19BCC5TH01**

**Scheme/Key**

**Time: 3 hours**

**Max Marks: 60**

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**KEY CUM SCHEME OF VALUATION**

**1. A. i) Explain the characteristics of Entrepreneurs.**

**6 marks**

An entrepreneur is a person who is action-oriented and highly motivated to take a risk and to achieve such a goal dot brings about a change in the process of generating goods or services or re-initiates progress in the advent of creating new organizations. Therefore, experts have nine characteristics for the entrepreneur from different conceptual viewpoints.

9 characteristics of an entrepreneur are;

Entrepreneur is an agent.

Entrepreneur is a risk taker.

Entrepreneur is a profit maker.

Entrepreneur is an achievement motivator.

Entrepreneur is a capital provider.

Entrepreneur is the determinant of the nature of the business.

Entrepreneur is an innovator.

Entrepreneur is a reward receiver.

Entrepreneur is a challenge taker.

The characteristics that encompass the concept of the entrepreneur are discussed below:



### **1. Entrepreneur is an agent**

An entrepreneur is perceived as an economic agent who assembles materials for producing goods at a cost that ensures profits and re-accumulation of capital. He is also understood as a change agent who brings about changes in the structure and formation of the organization, market and the arena of goods and services.

**2. Entrepreneur is a risk taker:** An entrepreneur is a person who identifies the nature of risk and takes a decision. Entrepreneur is a risk taker while undertaking a venture.

**3. Entrepreneur is a profit maker:** An entrepreneur is an individual who establishes and manages the business for the principal purpose of profit and growth.

**4. Entrepreneur is an achievement motivator:** "entrepreneurs are action-oriented, highly motivated individuals." Therefore, entrepreneurs have to have a deep-rooted need for achieving their goals.

**5. Entrepreneur is a capital provider:** Entrepreneur a person who operates a business by investing his or her capital. They perceived entrepreneur as the founder of an enterprise who assembles necessary resources for the operation of the enterprise.

**6. Entrepreneur is the determinant of the nature of the business:** Entrepreneur is the person or group of persons who perform the task of determining the kind of business to be operated.

Therefore, entrepreneurs promote diversified and distinct types of business in society.

**7. Entrepreneur is an innovator:** Entrepreneur as a person who takes a small venture to the edge of success by his efforts, innovation and motivation. Innovation is an action that introduces a product, a new quality, a new method of production, new market and new organization.

**8. Entrepreneur is a reward receiver:** An entrepreneur is a person who creates something new of value by devoting time and efforts and in turn receives monetary and personal rewards.

### **9. Entrepreneur is a challenge taker:**

It perceives entrepreneur as a person who accepts challenges for developing and exercising vigilance about success and failure to take a risk and to generate products.

The above-mentioned characterizes of an entrepreneur show that an entrepreneur is a dynamic person who promotes society and civilization by taking ventures that give an enormous variety of goods and organizations to bring about changes in the arena of industrial activity.

### **Examples of Entrepreneurs**



Eddie hopes that his entrepreneurial gamble will pay off as well as the gambles of other well-known entrepreneurs, such as:

- 1). Bill Gates, founder of Microsoft. There are probably not many people that have not been touched by one of his products, such as Microsoft Windows, Microsoft Office and Internet Explorer.
- 2). Steve Jobs, co-founder of Apple computers, which produces Macs, iPods and iPhones, as well as Apple TV.
- 3). Mark Zuckerberg, the founder of Facebook.
- 4). Pierre Omidyar, founder of eBay.

**1. a. ii) DISCUSS THE ROLE OF ENTREPRENEURSHIP IN ECONOMIC DEVELOPMENT. 6 marks**

**ROLE OF ENTERPRENUERSHIP IN ECONOMIC DEVELOPMENT**

**1. Employment opportunities**

Entrepreneurs employ labour for managing their business activities and provides employment opportunities to a large number of people. They remove unemployment problem.

**2. Balanced Regional Development**

Government promotes decentralized development of industries as most of the incentives are granted for establishing industries in backward and rural areas. Thus, the entrepreneurs to avail the benefits establish industries in backward and rural areas.

They remove regional disparities and bring balanced regional development. They also help to reduce the problems of congestion, slums, sanitation and pollution in cities by providing employment and income to people living in rural areas. They help in improving the standard of living of the people residing in suburban and rural areas.

**3. Mobilization of Local Resources**

Entrepreneurs help to mobilize and utilize local resources like small savings and talents of relatives and friends, which might otherwise remain idle and unutilized. Thus they help in effective utilization of resources.

**4. Optimization of Capital**

Entrepreneurs aim to get quick return on investment. They act as a stabilizing force by providing high output capital ratio as well as high employment capital ratio.

**5. Promotion of Exports**

Entrepreneurs reduce the pressure on the country's balance of payments by exporting their goods they earn valuable foreign exchange through exports.



#### **6. Consumer Demands**

Entrepreneurs produce a wide range of products required by consumers. They meet the demand of the consumers without creating a shortage for goods.

#### **7. Social Advantage**

Entrepreneurs help in the development of the society by providing employment to people and paves for independent living they encourage democracy and self-governance. They are adept in distributing national income in more efficient and equitable manner among the various participants of the society.

#### **8. Increase per capita income**

Entrepreneurs help to increase the per capita income of the country in various ways and facilitate development of backward areas and weaker sections of the society.

#### **9. Capital formation**

A country can attain economic development only when there is more amount of investment and production. Entrepreneurs help in channelizing their savings and savings of the public to productive resources by establishing enterprises. They promote capital formation by channelizing the savings of public to productive resources.

#### **10. Growth of capital market**

Entrepreneurs raises money for running their business through shares and debentures. Trading of shares and debentures by the public with the help of financial services sector leads to capital market growth.

#### **11. Growth of infrastructure**

The infrastructure development of any country determines the economic development of a country, Entrepreneurs by establishing their enterprises in rural and backward areas influence the government to develop the infrastructure of those areas.

#### **12. Development of Trader**

Entrepreneurs play an important role in the promotion of domestic trade and foreign trade. They avail assistance from various financial institutions in the form of cash credit, trade credit, overdraft, short term loans, secured loans and unsecured loans and lead to the development of the trade in the country.

#### **13. Economic Integration**

Entrepreneur reduces the concentration of power in a few hands by creating employment opportunities and through equitable distribution of income. Entrepreneurs promote economic integration in the country by adopting certain economic policies and laws framed by the government. They help in removing the disparity between the rich and the poor by adopting the rules and regulation framed by the government for the effective functioning of business in the country.

#### **14. Inflow of Foreign Capital**

Entrepreneurs help to attract funds from individuals and institutions residing in foreign countries for their businesses.



**1. B. I) Discuss the Social responsibilities of Entrepreneur.**

**6 marks**

Social Responsibility means eliminating corrupt, irresponsible or unethical behaviour which might harm to the community, its people and the environment.

**1) Public image:** The activities of entrepreneur towards the welfare of the society earn goodwill and reputation for the business. People prefer to buy products of a company that engages itself in various social welfare programs. Again good public image also attracts the honest and competent employees to work with such employers.

**2) Employee Satisfaction.** Employees are the part of the society. If you satisfy your needs, then you are doing social work.

**3) Ethical Leadership.** It is the belief that what entrepreneur does has a strong influence on employees. If manager cheats, Lies, steals or manipulates, then they are sending wrong signals to employees.

**4) A social Entrepreneur** is an individual or organization who seeks out opportunities to improve society by using practical, innovative and substantial approaches. Since last three decades, HDFC contributes 7% of its income to support community needs. Mahindra Tech employees donated one day salary to help victims of Bihar floods. Wipro has set up a foundation named Azim Premji Foundation to help improve education of the elementary schools in rural India.

**5) Environment Management.** Managers and Organizations can do many things to protect and preserve the natural environment which includes plastic less business by giving paper bag, creating eco-friendly product, by eliminating production.

**6) Consumer Awareness.** Consumers have become very conscious about their rights. If you are giving high quality products at cheap rate, that is kind of social Responsibility.

**2. a. i) Discuss the steps in Creativity Process.**

**6 marks**

**Creativity**

Creativity is thinking new things, the ability to develop new ideas and to discover new ways of looking at problems and opportunities.

**PROCESS OF CREATIVITY**

**1) Preparation**



The key to this step is to fully immerse oneself in the material. This step usually involves a creative brief and includes things like researching a brand, the target audience, or gathering inspirations from other sources. If you're a writer, you're reading other works in the same area. If you're a musician, you're listening to other pieces of music that inspires you. The same applies for the creative class of graphic designers and digital artists.

## **2) Incubation**

This step is where the "magic" happens for most creatives. After we absorb all the information from the Preparation phase, the next step is to let the ideas marinate in our subconscious. This is when you step away from the problem and do something else; that could be grabbing lunch, going for a run, watching TV, taking a shower, doing laundry, or getting a good night's rest. For me, some of my best ideas come during nighttime drives through Dallas, admiring the lights of the city skyline.

## **3) Illumination**

This is the light bulb moment - the "Aha!" moment, The "Eureka!" - The moment when the perfect idea hits you like a bolt of lightning. As a mentor of mine once said, the best ideas come when two unrelated ideas bounce around in your brain for a while and collide together to create something amazing. When this moment hits, a person might rush to their sketchbook or keyboard to jot it down before it escapes them.

## **4) Evaluation**

This is the hard part, where you look at all the ideas before you and narrow it down to which ones work and which ones don't. This is usually the phase when client feedback comes into the mix and you, your team and the client weigh different options and decide what works for the problem at hand.

## **5) Implementation**

You've done the work, you've narrowed it down, you've decided on a direction, now go! This is the part where the final product gets produced, where things like skill, experience, knowledge, and hours of work come in to play. This is the writer's final draft, the artist's finished piece, the musician's live performance. The satisfaction of a job well done after this stage makes all the hours of hard work worth it.

People in creative industries spend thousands of hours repeating and perfecting this process to figure out what works for them, but that doesn't mean only designers and writers can use it. I encourage you to use these 5 steps in your work to help make work that's more creative, more revolutionary and will be sure to impress your clients and yourself.

### **2. b. i) EXPLAIN THE FACTORS AFFECTING CREATIVITY.**

**6 marks**

#### **FACTORS AFFECTING ON CREATIVITY**

Creativity is something which cannot be taught as well as not something you are born with either. But it certainly is the most important part of any brilliant innovators success.



**Experiences:** Experiences are a key player in creative thinking, the more you experience more influenced you get. These experiences define your ideas and creativity which are presented through your work.

**Fearlessness:** Fearlessness is a major factor having impact on one's creativity. A person who thinks that he is not creative can never be. Having doubts is ok, but being worried about the success of an idea clearly shows that you lack faith in your ideology. Experts say 'Be fearless with your creativity and you'll open more doors for new ideas.

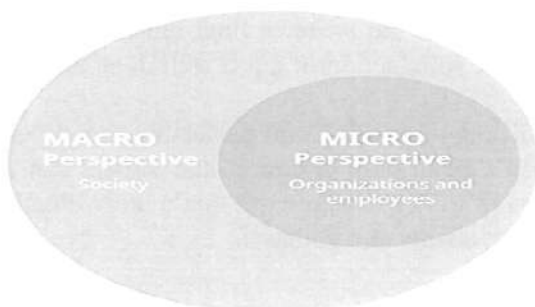
**Desire:** Desire is factor of creativity which is overlooked but it is as vital as any other criterion for growing as a creative individual. Science bluntly states that, if you simply don't want to change things (or solve problems or inspire others or do new things) then you won't.

**Atmosphere & Environment:** Yes! It all about the world around us. Atmosphere and Environment both go hand in hand to influence an individual's creativity levels. 'Environmental factors affecting creativity and innovation' say's: Although innovation and creativity can emerge in a variety of settings and situations, some environments are more conducive to the creative process. In one large study, it was found that having a vision, being strong oriented, and engaging in external communication had a strong relationship to creativity and innovation.

**Space & Time:** Productivity may increase under pressure but creativity has no positive influence if the undisturbed space and right amount of time is not provided. John Cleese's talk on creativity states: that having a start and end time to keep your creative space open is essential. Without a dedicated time block, it is easy to leave a creative mind-set to focus on trivial matters that are easier to deal with than to take the time to do things that are important. It also take time to get into your creative mode.

**2. b. ii) DISCUSS THE IMPORTANCE OF INNOVATION. 6 marks**

### **IMPORTANCE OF INNOVATION**



### **MACRO**

#### ***Economic growth***

*Technological innovation is considered as a major source of economic growth. Economic growth refers to the increase in the inflation-adjusted market value of the goods and services*



*produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP.*

### ***Innovation and the future of jobs***

*Technological advancement and increased productivity means major changes for careers today as well. The world economy could more than double in size by 2050 due to continued technology-driven product improvements.*

*According to the new World Economic Forum report, nearly 133 million new jobs may be created by 2022 while 75 million jobs are displaced by AI, automation and robotics.*

### ***Increased well-being***

*In general, innovation and economic growth increases well-being because living standards rise. According to the Brookings Institution, average life satisfaction is higher in countries with greater GDP per capita. Another research also shows that there's a link between innovation and subjective wellbeing.*

*However, not all of the benefits of innovation and growth are evenly distributed. Often, a rise in real GDP means greater income and wealth inequality. Although there isn't a threshold level for how much inequality is too much, greater socioeconomic gaps are most likely have some negative consequences.*

### ***Reduced sickness, poverty and hunger***

*As already mentioned, developing countries depend on innovation as new digital technologies and innovative solutions create huge opportunities to fight sickness, poverty and hunger in the poorest regions of the world.*

*Developed countries also rely on innovation to be able to solve their own problems related to these themes.*

*What comes to reducing hunger, for example, agricultural productivity is critical in the developing countries where the next population boom is most likely to take place. Smallholder farms in developing countries play an important role as up to 80% of the food is produced in these communities.*





### ***Communication and educational accessibility***

*You probably already knew that The World Wide Web celebrates its 30th birthday this year. We've already seen a huge technological revolution during the past decades and continue to do so in the future.*

*According to the World Bank Annual Report 2016, even among the poorest 20 percent of the population, 7 out of 10 households have a mobile phone. This means that more people now have mobile phones than sanitation or clean water.*

### ***Environmental sustainability***

*Sustainability and environmental issues, such as climate change, are challenges that require a lot of work and innovative solutions now and in the future.*

*Earth suffers as consumerism spreads and puts consumption at the heart of modern economy. Although consumerism has a positive impact on innovation as a source of economic growth, the rising consumption of innovative products is often considered as one of the reasons for environmental deterioration.*

### **3. a. i) DISCUSS THE OBJECTIVES OF EDPS.**

**6 marks**

#### **OBJECTIVES OF ENTREPRENEURIAL DEVELOPMENT PROGRAMME (EDP)**

- To make people learn compliance with law.
- To develop and fortify entrepreneurial quality, i.e., motivation or need for achievement.
- To develop small and medium scale enterprises in order to generate employment and widen the scope of industrial ownership.
- To industrialize rural and backward sections of the society.
- To understand the merits and demerits of becoming an entrepreneur.
- To investigate the environmental set-up relating to small industries and small businesses.
- To design project for manufacturing a product.
- To increase the supply of entrepreneurs for quick industrial development.
- To prepare individuals to accept the uncertainty involved in running a business.
- To develop managerial skills among small entrepreneurs for improving the performance of small-scale industries.
- To offer profitable employment opportunities to educated young men and women.
- To expand the sources of entrepreneurship.

### **3. A. ii) EXPLAIN THE NEED FOR TRAINING FOR ENTREPRENEUR. 6 marks**

#### **NEED/IMPORTANCE OF ENTREPRENEURIAL DEVELOPMENT PROGRAMME**

**1) Formation of Employment Opportunities:** Entrepreneurial development programmes generate employment opportunities in the developing and under-developed countries. It



assists and encourages individuals to establish their own business and enable them to become self-employed. By setting-up. Several business enterprises, EDP also creates abundant job opportunities for other people.

**2) Provides Adequate Capital:** A large amount of capital is required to set-up a business enterprise. This financial assistance is provided by various EDP agencies. EDPs instruct the development banks such as ICICI, IDBI, IFCI, SIDCs, etc., to take initiative in promoting entrepreneurship.

**3) Proper Utilization of Local Resources:** New entrepreneurs utilize the available local resources in the most effective way. This utilization of resources plays an important role in the development of a particular area or region at minimum cost. EDPs .guide, educate and teach the entrepreneurs to exploit the local resources efficiently.

**4) Increased Per Capital Income:** Entrepreneurs have the ability to organise the factors of production and utilize them in the most productive manner by establishing an enterprise. This development leads to increased production, employment and wealth generation. As a result, overall productivity and per capital income of the economy is raised.

**5) Improved Standard of Living:** EDPs provide latest technologies and innovative methods to entrepreneurs which helps them to produce large quantity of products at lower cost. This also enables entrepreneurs to exploit the available resources and produce quality products. This automatically leads to improved standard of living.

**6) Economic Independence:** EDPs strengthen the entrepreneurs to produce variety of products in large quantities at competitive prices. It also helps an entrepreneur to develop substitutes of imported products which prevents the country from being dependent on other foreign countries. It also saves foreign exchange of the country.

**7) Preventing Industrial Slums:** Most of the developed industrial areas are facing problems related to industrial slums. This leads to over burdening of public amenities and also affects the health of people adversely. EDPs offers several subsidies, incentives, infrastructural support and financial grants to new entrepreneurs for establishing their businesses, thus, preventing the growth of industrial slums.

**8) Reducing Social Tension:** A majority of youngsters and educated individuals of the society are in the state of social unrest and tension. This social tension restricts them from finding the right direction in their careers. Most of the students feel frustrated about not getting a job after the completion of education. In such situations, EDPs helps people by providing them proper guidance, assistance, training and support for establishing new enterprises and businesses, as a consequence, social tension is reduced as they generate self-employment opportunities.

**9) Facilitating Overall. Development:** EDPs facilitate entrepreneurship which helps in the overall development of the society by producing new products, innovative services, low cost consumer goods, job opportunities, increasing the standard of living, and overall productivity. This facilitates in the overall development of the economy and the country.



### **3. B. I) DISCUSS THE PHASES OF EDP FOR NEW ENTREPRENEURS. 6 marks**

#### **PHASES OF ENTREPRENEURIAL DEVELOPMENT PROGRAMME (EDP)**

##### **1) Pre-Training Phase:**

This step can be considered as the introductory phase in which the entrepreneurship development programmes are launched. Wide spectrums of activities are performed in this phase are described below:

- i) Identification of suitable location where the operations can be initiated like a district.
- ii) Selection of an individual as a course coordinator or project leader to coordinate the EDP activities.
- iii) Organisation of basic infrastructural facilities related to the programme.
- iv) Conducting the environmental scanning or industrial survey in order to look for better business opportunities.
- v) Developing various plans associated with the programme, like:
  - a) Promotional activities by using electronic or print media, posters, leaflets, etc.
  - b) Contacting business experts, different agencies, NGOs that can become a part of the programme, directly or indirectly.
  - c) Printing the application forms and availing them in different locations with the instructions.
  - d) Establishing selection committee for screening of candidates.
  - e) Preparing budget and getting it approved from the management and arranging other activities which are related to the programme.
  - f) Arranging and deciding the need-based elements in the syllabus of training programme and to contact guest faculties for the training session.
- vi) Looking for the assistance of various agencies such as DICs, banks, SISI, NSIC, DM and so on.
- vii) Conducting industrial motivational campaigns to increase the number of applications.

##### **2) Training Phase:**

The main function of any EDP is to impart training to future entrepreneurs and guiding them for establishing the enterprise. The normal duration of the entrepreneurship development programme is 4-6 weeks and it is usually a full time course. The objectives, training inputs and the centre of focus are explained in the programme design.



Commonly, it is considered that the trainees do not have enough information about the change because of which new programme is prepared. Each trainee should appraise himself at the termination of the training programme to have a clear view about his/her future endeavours.

<b>Training Phase - Programme Design</b>		
<b>Objectives</b>	<b>Focus</b>	<b>Inputs</b>
Promoting and sustaining the skills of entrepreneurship and building up the confidence.	Entrepreneur.	Behavioral inputs.
Helping in establishing the new enterprise through decision-making.	Enterprise establishment Creating enterprise.	Business opportunity guidance, information and project planning inputs, technical inputs. Guiding for enabling business opportunities, information and project planning and technical opinions.
Successful and profitable operation of enterprise. Industrial exposure Performing profitable and successful operations, exposure various industrial knowledge.	Enterprise management, first-hand knowledge of factory layout, business sites, etc. Information related to factory layout, plant location, organisation management and so on.	Management inputs, plant visit/in-plant training Management suggestions industrial visit or training.

### **3) Post-Training Phase :**

This phase is also referred as the phase of follow-up assistance. In this phase, the candidates who have completed their programme successfully are provided post-training assistance. This phase is very important as after the completion of training programme, most of the entrepreneurs face a lot of hardship in the business plan implementation. Thus, with the help of various counselling sessions, the training organisations try to extend their support to trainees. Members like State Financial Corporation, commercial banks, training institutions and District Industries Centre constituted all together to assist the entrepreneurs on the basis of mentioned goals :

- To assist trainees in a meaningful manner so that trainees can realize their business plan.
- To analyse the development made by trainees in the project implementation.



- To evaluate the post-training approach.
- To provide escort services to the trainees with the help of various promotional and financial institutions.

Commonly, these follow-up action meetings are conducted after every three years of training completion and the tools used for the follow-up are :

- Postal questionnaires.
- Telephonic follow-up.
- Individual contact by the trainer.
- Team meetings.

A number of government and private institutions are providing assistance in India to entrepreneurs. Some of them are listed below:

- Small Industries Development Organisation (SIDO),
- Commercial Banks,
- National Alliance of Young Entrepreneurs (NAYE),
- National Institute for Entrepreneurship and small Business Development (NIESBUD),
- Entrepreneurship Development Institute of India (EDI),
- India Investment Centre (LIC),
- Small-scale industrial Development Bank Of India (SIDBI), and
- Technical Consultancy Organisation (TCO).

### **3. b. ii) DEVELOP AND APPROPRIATE TRAINING PROGRAMME TO ENTREPRENEURIAL SPIRIT. 6 marks**

The Entrepreneurial Development Training Program (EDTP) is at the core of LAEDA's Comprehensive Economic Development Strategy (LCEDS) and is LAEDA's primary strategy for Empowering Individuals.

As part of LCEDS, EDTP serves as the pipeline of new businesses coming into the marketplace. These businesses are selected with an eye towards the market needs in the various commercial districts around the city as developed by the CDRI and LBSC programs.

Entrepreneurial Development Training Program (EDTP) is created to provide an alternate route to gainful employment for economically disadvantaged individuals through the establishment of their own business.

Business creation has been in all number of industries, they include: construction firms, cleaning services, day care centers, hair salons, computer sales and services, clothing manufacturing, specialty retailers, office support services, bakeries, restaurants, and so many more. Chances are you have done business with one of our graduates!



**4).a)i) EXPLAIN THE MEANING OF A PROJECT. 6 marks**

A Project is a group of unique, interrelated activities that are planned and executed in a certain sequence to create a unique product and/ or service, within a specific time frame, budget and the client's specifications.

**According to the Project Management Institute's (PMI) Publication**, "A Guide to the Project Management Body of Knowledge' (PMBOK), a project is defined as, "a temporary endeavour undertaken to create a unique product or service."

**According to F. L. Harrison**, "A project can be defined as a non- repetitive, one- off undertaking, normally with discrete time, financial and technical performance goals."

**According to the British Standard** , a project is define as, " a unique set of co-ordinated activities, with definite starting and finishing points, undertaken by an individual or organization to meet specific objectives.

Broadly these objectives, which are usually defined as part of the business case and set out in the project brief, must meet three fundamental criteria:

1. The project must be completed on time;
2. The project must be accomplished within the budgeted cost;
3. The project must meet the prescribed quality requirement.

**CHARACTERISTICS OF PROJECT**

**Focus:** A project has a fixed set of objectives/mission/goal. Once these objectives, goals, or missions' targets have been achieved, the project will become extinct from the organizational pyramid.

**Life Span:** A project cannot continue indefinitely. It is either executed, terminated, or dead. Every project is invariably time bound. The time limits are well defined through schedules.

**Team Spirit:** Every project encourages team spirit among the group of people who participate in it and are instrumental in achieving its goal. This team consists of different individuals from varied disciplines who give their knowledge, experience, and credence towards a total performance.

**Lifecycle:** Like any other product, a project is also reflected and influenced by the lifecycle phases and to which the success or failure of the project can be ascribed. Unswervingly, from conception to commission, a project has to run through six phases that are intertwined with various stages.

**Unique Activities:** Every project has a set of activities that are unique, which means it is the first time that an organization handles that type of activity. These activities do not repeat in



the project under similar circumstances, i.e., there will be something different in every activity or even if the activity is repeated, the variables influencing it change every time. For example, consider a ship building yard that builds ships for international clients. Even though the organization builds many ships, each time there will be a difference in some variable such as the vessel's design, time allowed for construction, etc.

**Attainment of Specific Goal:** Organizations take up projects to perform a particular task or attain a specific goal. These tasks differ from project. The projects in an organization could be constructing a new facility, computerizing the accounts department or studying the demand for a new product that the organization plans to launch in the market. All these projects have a specific goal or result to attain and hence it can be said that every project is goal-oriented.

**Sequence of Activities:** A project consists of various activities that are to be performed in a particular sequence to deliver the end-product. This sequence depends on the technical requirements and interdependency of each of the activities.

**Specified Time:** every project has a specified start date and completion date. This time limit is either self- imposed or it is specified by the client. The life span of a project and run from a few hours to a few years. A project comes to a close when it delivers the product and/ or service as per the client's requirements or when it is confirmed that it is no longer possible for the project to deliver the final product and/or service as required by the client.

**Interrelated Activities:** Projects consists of various technically interrelated activities. These activities are considered interrelated as the deliverable (Output) of one activity becomes the input for another activity of the project. For example, the project of building a multi- storied luxury hotel. This project consists of various activities such as making a building plan, landscaping, constructing the building, designing the interiors, furnishing the rooms, etc. All these activities are interrelated and are equally important for the completion of the project.

**Transience creates Urgency:** To be worthwhile and to repay the investment, the development objectives must be achieved by a certain time. Sometimes those time constraints are very tight, there is a very narrow market window for the output from the project. If the market window is missed, the project has no value. However, more often, the market window is broader and though the project will be worth less if it is late, the loss in value from later delivery has to be balanced against a potential greater value if more time is spent developing the project's output. Unfortunately, the timescale often receives undue emphasis. There are time pressure in routine operations. However, because they are routine, it is known how much can be done in a given time, and so there is less likelihood of committing to impossibly tight timescales.

## **ii.) DISCUSS THE SOURCES OF NEW IDEAS**

**6 marks**

### **PROJECT IDEAS**

It is the first and foremost task of an entrepreneur to find out suitable business which is feasible and promising and which merit further examination and appraisal. Therefore, he has



to first search for a sound workable business idea and give a practical shape to his idea. while doing so, the entrepreneur has to tackle the various problems from time to time to achieve the ultimate success. Since the good project ideas are elusive, a variety of sources should be tapped to stimulate the generation of project ideas.

### **Sources of Project Ideas**

#### **Analyse the Performance of Existing Industries**

A study of existing industries in terms of their profitability and capacity utilisation is helpful. The analysis of profitability and break even level of various industries indicates promising investment opportunities. Opportunities which are profitable and relatively risk free. An examination of capacity utilisation of various industries provides information about the potential for further investment. Such a study becomes more useful if it is done regionwise, particularly for products which have high transportation costs.

#### **Examine the Inputs and Outputs Of Industries**

An analysis of the inputs required for various industries may throw up project ideas. Opportunities exist when (I) materials purchased parts, or supplies are presently being procured from different sources with attendant time lag and transportation costs and (ii) several firms produce internally some components/parts which can be supplied at a lower cost by a single manufactures who can enjoy economies of scale.

A study of the output structure of existing industries may reveal opportunities for further processing of output or even processing of waste.

#### **Examine Imports and Exports**

An analysis of import statistics for a period of five to seven years is helpful in understanding the trend of imports of various goods and the potential for import substitution. Indigenous manufacture of goods currently imported is advantageous for several reasons:

It improves the balance of payments situation

It provides market for supporting industries and services

It generates employment

Likewise, an examination of export statistics is useful in learning about the export possibilities of various products.

#### **Plan Outlays and Government Guidelines**

The government plays a very important role in our economy. Its proposed outlays in different sector provides useful pointers toward investment opportunities. They indicate the potential demand for goods and service required by different sectors.

#### **Suggestions of Financial Institutions and Developmental Agencies**



In a bid to promote development of industries in their respective states, state financial corporations state industrial development corporations and other developmental bodies conduct studies, prepare feasibility reports and offer suggestions to potential entrepreneur. The suggestions of these bodies are helpful in identifying promising projects.

#### **Investigate Local Materials and Resources**

A search for project ideas may begin with an investigation into local resources and skills, various ways of adding value to locally available materials may be examined. Similarly, the skills of local artisans may suggest products that may be profitably produced and marketed.

#### **Analyse Economic and Social Trends**

A study of economic and social trends is helpful in projecting demand for various goods and services. Changing economic conditions provide new business opportunities. A great awareness of the value of time is dawning on the public. Hence the demand for time saving products like prepared food items, ovens and powered vehicles has been increasing. Another change that we are witnessing is that the desire for leisure and recreational activities has been increasing. This has caused a growth in the market for recreational products and services.

#### **Identify Unfulfilled Psychological Needs**

For well established, multi brand product groups like bathing soaps, detergents, cosmetics and tooth pastes, the question to be asked is not whether there is an opportunity to manufacture something to satisfy an actual physical need but whether there are certain psychological needs of consumers which are presently unfulfilled. To find whether such an opportunity exists, the technique of spectrum analysis may be followed. This analysis is done somewhat as follows.

Important factors influencing brand choice are identified respect of the factors identified in step gaps which exist in relation to consumer psychological needs are identified.

#### **Visit to Trade Fairs**

Attending the National and International trade fairs provides an excellent opportunity to know about new products and new development.

The abovesaid sources of project ideas may be generated by the Government agencies, credit institutions, non governmental organisations and also by public.

The Govt. have largest resources and have the necessary information to generate project ideas and it plays a predominant role in this sphere. The government has the required facilities and manpower to conduct detailed studies which may lead to making investment decisions. Banks and other financial institutions are actively involved in sharing the social responsibility of achieving the national objectives of economic development. The co-operatives and non governmental organisations as well as individual entrepreneurs are now actively participated in identification of projects.



#### **4.(b).i) MEANING AND DEFINITION OF PROJECT FEASIBILITY ANALYSIS**

**6 marks**

Feasibility literally means whether some idea will work or not. It knows beforehand whether there exists a sizeable market for the proposed product/ service, what would be the investment requirements and where to get the funding from, whether and wherefrom the necessary technical know-how to convert the idea into a tangible product may be available and so on. In other words, feasibility study involves an examination of the operations, financial, HR and marketing aspects of a business on ex ante (before the venture comes into existence) basis.

Project Feasibility Analysis results in a reasonably adequate formulation of the project in terms of location, production technology, production capacity, material inputs etc., and contains fairly specific estimates of project cost, means of financing, sales revenues, production costs, financial profitability and social benefits.

#### **Type of Feasibility Analysis**

The feasibility study includes the following types of feasibility analysis:

- 1) Technical Feasibility:** The technical feasibility refers to the ability of the process to take advantage of the current state of art technology in pursuing further improvement. The technical capability of the personnel as well as the capability of the available technology in relation to the requirements of the proposed project idea should be considered and the extent of compatibility should be studied.
- 2) Managerial Feasibility:** The managerial feasibility involves the capability of the infrastructure of a process to achieve and sustain process improvement. Management support, employee involvement and commitment are the key elements required to ascertain managerial feasibility.
- 3) Economic Feasibility:** The economic feasibility analyzes the feasibility of the proposed project to generate economic benefits. A cost-benefit analysis and a break-even analysis are used while evaluating the economic feasibility of new industrial projects. In a cost – benefit analysis, all tangible benefits and costs as well as intangible benefits and costs are identified before obtaining the B/C ratio. The break- even analysis helps to find the break- even quantity at which the project has no loss or gain.
- 4) Financial Feasibility:** The financial feasibility attempts to assess the capability of the project organization to raise the appropriate funds needed to implement the proposed project. Loan availability, credit worthiness, equity and loan schedule are important aspects of financial feasibility analysis.
- 5) Cultural Feasibility:** The cultural feasibility deals with the compatibility of the proposed project with the cultural set-up of the project environment. In labor intensive projects, planned functions must be integrated with the local cultural practices and benefits. Some examples of cultural factors are religion, custom- life style, etc.



**6) Political Feasibility:** The political feasibility deals with the initial acceptance of the project and sustenance of the project in the long-run by the prevailing political system. This is particularly true for the large projects with national visibility that may have significant government inputs and political implications. The issues on which political intervention may arise are conversion of land from agricultural use to industrial use, anticipated health hazard if the project is implemented, possible air pollution and water pollution, possible unemployment due to hi-tech projects, etc.

**7) Environmental Feasibility:** The environmental feasibility is very much important. If the commissioning of the project results with any kind of pollution, it will be visible to the public, administrators and politicians. If necessary corrections and preventive measures are not taken by the project firm to prevent/curtail pollution, the project will be forced to meet certain problems in terms of opposition from different circles. As a result, sometime, the project firm may be pushed to the corner of closure/re-location of the project itself which will cost the organization more.

## **II).OUTLINE PROJECT EVALUATION TECHNIQUES**

**6 marks**

### **Payback period method:**

As the name suggests, this method refers to the period in which the proposal will generate cash to recover the initial investment made. It purely emphasizes on the cash inflows, economic life of the project and the investment made in the project, with no consideration to time value of money. Through this method selection of a proposal is based on the earning capacity of the project. With simple calculations, selection or rejection of the project can be done, with results that will help gauge the risks involved. However, as the method is based on thumb rule, it does not consider the importance of time value of money and so the relevant dimensions of profitability.

$$\text{Payback period} = \text{Cash outlay (investment)} / \text{Annual cash inflow}$$

### **Accounting rate of return method (ARR):**

This method helps to overcome the disadvantages of the payback period method. The rate of return is expressed as a percentage of the earnings of the investment in a particular project. It works on the criteria that any project having ARR higher than the minimum rate established by the management will be considered and those below the predetermined rate are rejected.

This method takes into account the entire economic life of a project providing a better means of comparison. It also ensures compensation of expected profitability of projects through the concept of net earnings. However, this method also ignores time value of money and doesn't consider the length of life of the projects. Also it is not consistent with the firm's objective of maximizing the market value of shares.

$$\text{ARR} = \text{Average income} / \text{Average Investment}$$

### **Discounted cash flow method:**

The discounted cash flow technique calculates the cash inflow and outflow through the life of an asset. These are then discounted through a discounting factor. The discounted cash inflows



and outflows are then compared. This technique takes into account the interest factor and the return after the payback period.

### **Net present Value (NPV) Method:**

This is one of the widely used methods for evaluating capital investment proposals. In this technique the cash inflow that is expected at different periods of time is discounted at a particular rate. The present values of the cash inflow are compared to the original investment. If the difference between them is positive (+) then it is accepted or otherwise rejected. This method considers the time value of money and is consistent with the objective of maximizing profits for the owners. However, understanding the concept of cost of capital is not an easy task.

The equation for the net present value, assuming that all cash outflows are made in the initial year (tg), will be:

$$\begin{aligned} \text{NPV} &= \left[ \frac{A_1}{(1+k)^1} + \frac{A_2}{(1+k)^2} + \frac{A_3}{(1+k)^3} + \dots + \frac{A_n}{(1+k)^n} \right] - C \\ &= \sum_{t=1}^n \frac{A_t}{(1+k)^t} - C \\ &= t = 1 \end{aligned}$$

### **Internal Rate of Return (IRR):**

This is defined as the rate at which the net present value of the investment is zero. The discounted cash inflow is equal to the discounted cash outflow. This method also considers time value of money. It tries to arrive to a rate of interest at which funds invested in the project could be repaid out of the cash inflows. However, computation of IRR is a tedious task.

It is called internal rate because it depends solely on the outlay and proceeds associated with the project and not any rate determined outside the investment.

It can be determined by solving the following equation:

$$\begin{aligned} C &= \frac{A_1}{(1+r)^1} + \frac{A_2}{(1+r)^2} + \frac{A_3}{(1+r)^3} + \dots + \frac{A_n}{(1+r)^n} \\ C &= \sum_{t=1}^n \frac{A_t}{(1+r)^t} \neq C \\ 0 &= \sum_{t=1}^n \frac{A_t}{(1+r)^t} - C \end{aligned}$$

**If IRR > WACC then the project is profitable.**



**If  $IRR > k$  = accept**

**If  $IR < k$  = reject**

**Profitability Index (PI):**

It is the ratio of the present value of future cash benefits, at the required rate of return to the initial cash outflow of the investment. It may be gross or net, net being simply gross minus one. The formula to calculate profitability index (PI) or benefit cost (BC) ratio is as follows.

$$PI = PV \text{ cash inflows} / \text{Initial cash outlay } A,$$

$$= \frac{\sum_{t=1}^n \frac{A_t}{(1+k)^t}}{C}$$

$$PI = NPV (\text{benefits}) / NPV (\text{Costs})$$

**5) A). I) MEANING AND DEFINITION OF SMALL AND MACRO ENTREPRENEURS      6 marks**

Small and mid-size enterprises (SMEs) are businesses that maintain revenues, assets or a number of employees below a certain threshold. Each country has its own definition of what constitutes a small and medium-sized enterprise (SME). Certain size criteria must be met and occasionally the industry in which the company operates in is taken into account as well.

Though small in size, small and mid-size enterprises (SMEs) play an important role in the economy. They outnumber large firms considerably, employ vast numbers of people and are generally entrepreneurial in nature, helping to shape innovation.

**Understanding Small and Mid-size Enterprise (SME)**

In the United States, there is no distinct way to identify small and mid-size enterprises (SMEs). The European Union (EU) offers clearer definitions, characterizing a small-sized enterprise as a company with fewer than 50 employees and a medium-sized enterprise as one with less than 250 employees. In addition to small and mid-size companies, there are micro-companies, which employ up to 10 employees.

Just as the requirements for the categories differ per nation, so do the names and abbreviations. SME is commonly used by the EU, the United Nations (UN), and the World Trade Organization (WTO), whereas in the United States these firms are frequently referred to as small-to-mid-size businesses (SMBs). Elsewhere, in Kenya, they go by the name MSME, short for micro, small, and medium-sized enterprises, and in India, it is MSMED, or micro, small, and medium enterprise development. Despite the differences in nomenclature, countries share the commonality of separating businesses according to size or structure.



**ii) DISCUSS THE IMPORTANCE OF SMALL AND MICRO ENTERPRISES**  
**6 marks**

**Importance of MSME**

MSME has introduced in the year 2006 in India. There are still some service sectors that was not yet included in this sector was included in the definition of the Micro, Small and Medium-sized Enterprises making a historic change to this Act. Therefore leveraging the scope of the sector even now government simplified the MSME Registration online with the paperless work.

The further Importance of MSME in India has been described below:

1. **It creates large-scale employment:** Enterprises that are inclusive in this sector require low capital to start up new business. Moreover, it creates a vast opportunity for the unemployed people to avail. India produces about 1.2 million graduates per year out of which the total number of engineers are around 0.8 million. There is no economy so far that could provide that large number of fresher's in one year only. MSME is the boon for the fresh talent in India.
2. **Economic stability in terms of Growth and leverage Exports:** It is the most significant driver in India contributing to the tune of 8% to GDP. Considering the contribution of MSME to manufacturing, exports, and employment, other sectors are also benefitting from it. Nowadays, MNCs are buying semi-finished and auxiliary products from small enterprises, for example, buying of clutches and brakes by automobile companies. It is helpful in creating a linkage between MSME and big companies even after the implementation of the GST 40% MSME sector also applied GST Registration that plays an important role to increase the government revenue by 11%.
3. **Encourages Inclusive Growth:** The inclusive growth is at the top of the agenda of Ministry for Medium, and small and Medium-sized enterprises for several years. On the other hand, poverty and deprivation are a deterrent to the development of India. Besides, it includes marginalized sections of a society which is a key challenge lying before the Ministry of MSME.
4. **Cheap Labor and minimum overhead:** While in the large-scale organizations, one of the main challenge is to retain the human resource through an effective human resource management professional manager. But, when it comes to MSME, the requirement of labor is less and it does not need a highly skilled labourer. Therefore, the indirect expenses incurred by the owner are also low.
5. **Simple Management Structure for Enterprises:** MSME can start with limited resources within the control of the owner. From this decision making gets easy and efficient. On the contrary, a large corporation requires a specialist for every departmental functioning as it has a complex organizational structure. Whereas a small enterprise does not need to hire an external specialist for its management. The owner can manage himself. Hence, it could run single-handedly.
6. **The main role in the mission of "Make in India":** The signature initiative by the Prime Minister of India "Make in India" has been made easy with MSME. It is taken as a backbone in making this dreams a possibility. In addition, the government has directed the financial institution to lend more credit to enterprises in the MSME sector.



## **5.(B)I.CAUSES OF SICKNESS IN SMALL BUSINESS SUGGEST REMEDIES**

**6 marks**

*The sick industrial companies (special provision) act 1985, defined sickness in terms of "cash losses for two consecutive financial years and accumulated losses equaling or exceeding the net worth of the company at the end of the second financial year".*

*The problem of industrial sickness is nothing peculiar to our economy or any developing country. It is also present in the advanced countries, but there it is considered prudent to shut down the units if they are sick.*

Problem of industrial sickness is not specific to any industry or country. The approach to sickness is to restore a unit to normalcy through restructuring devices within a short period of time or else close it down. Such easy and straight forward options are not available to labour abundant economies like India which can ill afford large scale unemployment either of labour or of valuable productive assets caused by sickness.

Causes of Industrial sickness The different types of industrial sickness in Small Scale Industry (SSI) fall under two important categories. They are as follows:

### **External Causes**

**General Recessionary Trend:** Sometimes a general depression hits industrial units. This is reflected in lack of demand for industrial products in general. An overall slowdown in economic activities affects the performance of individual projects. Improper demand estimation for the products to project lands the industrial units in difficulties.

**High Prices of Inputs:** When the costs of manufacture are high and sales realisation low, the industrial unit cannot stand in the market. This happens when the prices of inputs such as price of fuel such as petroleum during energy crisis goes up whereas the competitive forces keep down the prices of the products.

**Non-Availability of Raw Materials:** When the supplies of raw materials are not available regularly or in good quality, the industrial units are bound to be in trouble. This often occurs in case of supply of imported raw materials.

**Changes in Government Policies:** The industrial sickness is also caused by certain changes in policy designs of the government. These frequent changes affect the long-term production, financial and marketing planning of an industrial unit. Changes in Government policies regarding imports, industrial licensing, taxation can make viable units sick. For example, liberal import policy since 1991 has rendered many small-scale industrial units sick.

**Infrastructure Bottlenecks:** Often the infrastructure difficulty is responsible for industrial sickness. No industrial unit can survive prolonged transport and power bottlenecks.

### **Internal Factors:**



**Project Appraisal Deficiencies:** The industrial unit becomes sick when the unit has been launched without a comprehensive appraisal of economic, financial and technical viabilities of the project.

**Industrial Unrest and Lack of Employee Motivation:** When there is labour discontent, no industrial unit can function smoothly and efficiently. When labour lacks motivation no good results can be expected and this results in sickness and non-viability of several industrial units.

**Wrong Choice of Technology:** If the promoters use wrong technology, results are bound to be unsatisfactory. Many industrial units, especially in the small-scale sector, do not seek professional guidance in installing the correct machinery and plant. If the machinery and plant installed turn out to be defective and unsuitable, they are bound to suffer losses and become sick and non-viable.

**Marketing Problems:** The industrial unit becomes sick due to product obsolescence and market saturation. The industrial unit becomes sick when its product-mix is not attuned to the consumers' demand.

**Wrong Location:** If the location of an industrial unit happens to be defective either from the point of the market or the supply of inputs, it is bound to experience insurmountable difficulties.

**Lack of Finance:** Inadequate financial arrangements or in the absence of timely financial aid an industrial unit is bound to come to grief. It will not be able to withstand operational losses.

**Improper Capital Structure:** If capital structure proves to be unsound or unsuitable especially on account of delayed construction or operation, it will result in cost overruns or unduly large borrowing and create financial trouble for the unit concerned.

There is a general consensus that growth in enterprises is a complex process, which is neither linearly continuous nor dependent upon only a limited number of factors.

Whilst there

**5(B.ii) OUTLINE THE FACTORS INFLUENCING GROWTH OF SMALL MICRO ENTREPRENEURS**

**6 marks**

are numerous variables that can influence the growth potential of a business, in our experience there are certain areas that business leaders need to pay particular attention to, such as the availability of financial, human, and social resources. Having technical and management skills that can adapt to and cope with a changing environment are also fundamental, as is the potential to train and develop staff. And any enterprise cannot survive without a dash of creativity and opportunity recognition.



## **Four key factors that influence business growth**

Here are the four key areas that we at Cranfield recommend any business owner to pay particular attention to when looking to grow their business.

### **1. Behavioural and personal traits**

A business leader's characteristics such as behaviour, personality and attitude can certainly have an impact on the growth of the business. Furthermore, their capabilities, including education and training create higher expectations in some industry sectors, whilst their social capital influences access to resources. Management experience, family history, functional skills and relevant business sector knowledge are also ingredients that will influence the recipe for success.

### **2. Business structure and management**

How the business is structured, its goals and the performance of its management team, in particular their ability to make rational decisions about its operation, will highly impact the successful development of the business.

### *3. External factors*

Whilst the above two considerations can be managed to an extent, external factors over which we have virtually no control are also going to have an effect on the business' growth. Such factors are the cultural, political and economic conditions of the country or region in which the company operates. The triggers for enterprise growth are found along a continuum from the attributes possessed by individuals to complex interrelationships among often changing cultural, political and economic conditions at national, regional and local levels.

### **4. Location**

Variation in size, scope and buoyancy of demand in local markets is likely to affect growth opportunities. On the supply side, variation in the cost and availability of labour, premises and services are also influential. Nevertheless, owner-managed businesses are often adaptable, employing different strategies to deal with these local variables so that their impact is minimized.

Just having a growth orientation does not guarantee growth. A business set up to exploit an identified market opportunity would be expected to have stronger growth orientation than one set up as a result of 'push' factors such as a lack of alternative opportunities. In a nutshell, it is important to identify the factors most relevant to the business and then exploit them to expand and grow the enterprise.

**T.MALLIKHARJUNARAO**

**(Subject Expert)**

**Dr.P.PATTABHI RAM**

**(BOS Chairman)**





**NARASARAOPETA**  
**ENGINEERING COLLEGE**  
(AUTONOMOUS)

**DEPARTMENT OF MECHANICAL ENGINEERING**

**CO-POs & CO-PSOs**  
**ATTAINMENT**



CO Attainment						
CO	CO Attainment Level (Mid)	CO Attainment Level (External)	Direct CO Attainment Level (Internal * 30%) + (External * 70%)	Indirect CO Attainment Level	Total CO Attainment Level (Direct CO Attainment * 90% + Indirect CO Attainment * 10%)	Total CO Target Level
C214.1	3	0	0.9	3	1.11	2.4
C214.2	3	0	0.9	3	1.11	2.4
C214.3	0	0	0	3	0.3	2.4
C214.4	0	0	0	3	0.3	2.4
C214.5	0	0	0	3	0.3	2.4
C214					0.624	2.4

1. Copy the Direct CO Attainment Level (Internal) and Direct CO Attainment Level (External) from the previous sheets and then find the Direct CO Attainment Level.
2. Find Direct CO attainment level using the formula:  

$$\text{CO Attainment Level (Internal)} * 30\% + \text{CO Attainment Level (External)} * 70\%$$
3. Copy Indirect CO Attainment Level.
4. Find the CO attainment level using the formula:  

$$\text{Direct CO Attainment Level} * 90\% + \text{Indirect CO Attainment Level} * 10\%$$



CO-PO Mapping															
COs	POs														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C214.1	3	3	2					3					3		-
C214.2	2	3	2					3					3		-
C214.3	3	3	2					3					3		-
C214.4	3	3	2					2					3		-
C214.5	2	3	2					1					3		-
C214	2.6	3	2	-	-	-	-	2.4	-	-	-	-	3	-	-

**Total CO Attainment through Direct & Indirect Assessment**

CO Attainment	0.624
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PO Attainment															
PO Attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
	0.54	0.62	0.42	-	-	-	-	0.50	-	-	-	-	0.62	-	-

1. Copy CO - PO matrix and CO attainment matrix from previous pages and find PO attainment.
2. PO attainment is calculated as per the following formula:  

$$PO_i = \text{Total CO attainment Level} / 3 \text{ where 'i' ranges from 1 to 12}$$

1. Copy CO - PSO matrix and CO attainment matrix from previous pages and find PSO attainment.
2. PSO attainment is calculated as per the following formula:  

$$PSO_i = \text{Total CO attainment Level} / 3 \text{ where 'i' ranges from 1 to 3}$$