



Subject Code: 19MCA5TH01

MCA - V Semester Regular Examinations, January-2022
SOFTWARE TESTING METHODOLOGY

Time: 3 hours

Max Marks: 60

Question Paper Consists of **Part-A** and **Part-B**.

Answering the question in **Part-A** is Compulsory & Four Questions should be answered from Part-B
All questions carry equal marks of 12.

Q.No.		Questions	KL	CO	M
PART-A					
1	a	List out the categories of integration bugs?	1	1	2
	b	Define the link counters?	1	1	2
	c	What is meant by transaction flow testing?	2	3	2
	d	Define the term domain testing?	1	3	2
	e	Whether the predicates are restricted to binary truth-values or not.	4	2	2
	f	Write testers comments about state graphs	2	2	2
PART-B					
2	a	Discuss about requirements, features and functionality bugs.	2	1	6
	b	To what extent can testing be used to validate that the program is fit for its purpose. Discuss?	4	4	6
3	a	What is meant by statement testing and branch testing with an example?	2	3	6
	b	Explain the term program's control flow? How is it useful for path testing?	2	3	6
4	a	Distinguish between the Control Flow and Transaction flow.	4	3	6
	b	Explain the following terms with examples: Dicing, Data-flow and Debugging.	2	4	6
5	a	Define nice - domain? Give an example for nice two - dimensional domain.	1	4	6
	b	State and Explain various restrictions at domain testing processes.	2	3	6
6	a	Reduce the following functions using K-Maps $F(A,B,C,D) = P(4,5,6,7,8,12,13)+d(1,15)$	3	4	6
	b	How can we determine paths in domains in Logic based testing?	3	4	6
7	a	Explain about good state and bad state graphs.	2	3	6
	b	What are the principles of state testing. Discuss advantages and disadvantages.	2	2	6

KL: Blooms Taxonomy Knowledge Level

CO: Course Outcome

M: Marks



Narasaraopeta Engineering College (Autonomous)

Kotappakonda Road, Yellamanda (P.O), Narasaraopet- 522601, Guntur District, AP.

Subject Code: 19MCA5TH02

MCA - V Semester Regular Examinations, January-2022

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Time: 3 hours

Max Marks: 60

Question Paper Consists of **Part-A** and **Part-B**.

Answering the question in **Part-A** is Compulsory & Four Questions should be answered from Part-B

All questions carry equal marks of 12.

Q.No.		Questions	KL	CO	M
PART-A					
1	a	Why do we need Artificial Intelligence?	1	1	2
	b	List any two features of hill climbing in AI.	1	2	2
	c	What is predicate logic?	2	1	2
	d	Discuss any two examples of machine learning applications.	3	2	2
	e	What is Hypothesis Space Search?	2	2	2
	f	List out remarks of the backpropagation algorithm.	1	3	2
PART-B					
2	a	What exactly is artificial intelligence? Explain Water Jug problem with production rules and give at least one solution for it.	3	3	6
	b	What is production system in AI and Explain production systems characteristics?	2	2	6
3	a	Define problem reduction? Explain problem reduction with AND-OR graphs	2	3	6
	b	Describe the heuristic search technique applied to a Best-First Search problem with an example?	3	3	6
4	a	Explain any two techniques to design a learning system.	2	2	6
	b	Define machine learning? What are the issues in machine learning?	2	3	6
5	a	What is decision tree? With an example briefly describe the algorithm for generating decision tree. What are the advantages and disadvantages?	2	3	12
6	a	Explain different types of perceptron models with neat sketch.	4	4	6
	b	Describe the backpropagation algorithm in ANN?	2	3	6
7	a	Differentiate between unsupervised learning and reinforcement learning.	2	3	6
	b	Distinguish between supervised learning and Reinforcement learning. Illustrate with an example	3	4	6

KL: Blooms Taxonomy Knowledge Level

CO: Course Outcome M: Marks



Narasaraopeta Engineering College (Autonomous)

Kotappakonda Road, Yellamanda (P.O), Narasaraopet- 522601, Guntur District, AP.

Subject Code: 19MCA5TH03

MCA - V Semester Regular Examinations, January-2022

CLOUD COMPUTING

Time: 3 hours

Max Marks: 60

Question Paper Consists of **Part-A** and **Part-B**.

Answering the question in **Part-A** is Compulsory & Four Questions should be answered from Part-B

All questions carry equal marks of 12.

Q.No		Questions	KL	CO	M
PART-A					
1	a	Describe the features of cloud.	2	1	2
	b	Describe Migration Service.	1	2	2
	c	What is a Private Cloud?	1	3	2
	d	What are Threats of large-scale cross-border virtualization infrastructures?	1	4	2
	e	List the Cloud best practices.	1	5	2
	f	What Is an Information Card?	1	6	2
PART-B					
2	a	Explain about the roots of the Cloud Computing	2	1	6
	b	Explain about the relevant deployment models for Enterprise Cloud Computing.	2	1	6
3	a	Explain about the Migration Techniques.	2	2	6
	b	List and Explain about the problems addressed by the Virtual Management Activity.	3	2	6
4	a	Explain about ANEKA Cloud Platform.	2	3	6
	b	Describe the importance of Quality and Security in Clouds.	3	3	6
5	a	Explain about Service Providers and Infrastructure Providers in Federated Cloud Computing.	2	4	6
	b	Explain about the Life Cycle of SLA.	2	4	6
6	a	Discuss the issues linked to the adoption of the cloud paradigm in the HPC context.	4	5	6
	b	Explain about the Problem of Interoperability related to Cloud Mashup.	2	5	6
7	a	Explain about the Change Management Maturity Model.	2	6	6
	b	Explain about the Cloud Service Life Cycle.	2	6	6

KL: Blooms Taxonomy Knowledge Level

CO: Course Outcome

M: Marks



Subject Code: 19MCA5PE06

MCA - V Semester Regular Examinations, January-2022 E-COMMERCE

Time: 3 hours

Max Marks: 60

Question Paper Consists of **Part-A** and **Part-B**.

Answering the question in **Part-A** is Compulsory & Four Questions should be answered from Part-B

All questions carry equal marks of 12.

Q.No.		Questions	KL	CO	M
PART-A					
1	a	Differentiate E-commerce from E-business	K2	1	2
	b	What are the steps for Mercantile order process?	K2	2	2
	c	What are digital currencies?	K2	4	2
	d	Write about Automation & Customization?	K2	3	2
	e	List internet applications for Commerce.	K1	4	2
	f	What is Information Filtering?	K2	4	2
PART-B					
2	a	Describe in detail about the broad view of electronic commerce environment.	K2	2	6
	b	State Explain, E-Commerce organization applications.	K4	3	6
3	a	List the various types of consumer oriented applications of E-commerce? Discuss them briefly.	K2	4	6
	b	How Mercantile Process models are useful for business.	K3	2	6
4	a	Explain about payment processing in credit card transactions.	K4	4	6
	b	Explain digital token based electronic payment system.	K4	4	6
5		Discuss in detail Supply chain Management	K2	1	12
6	a	What are Corporate Data Warehouses? Explain.	K4	2	6
	b	Illustrate steps involved on-line marketing process.	K4	4	6
7	a	Demonstrate about Information Filtering.	K2	4	6
	b	Explain about multimedia concepts.	K4	4	6

KL: Blooms Taxonomy Knowledge Level

CO: Course Outcome

M: Marks



Narasaraopeta Engineering College (Autonomous)

Kotappakonda Road, Yellamanda (P.O), Narasaraopet- 522601, Guntur District, AP.

Subject Code: 19MCA5PE07

MCA - V Semester Regular Examinations, January-2022

AGILE METHODOLOGY AND DEVOPS

Time: 3 hours

Max Marks: 60

Question Paper Consists of **Part-A** and **Part-B**.

Answering the question in **Part-A** is Compulsory & Four Questions should be answered from Part-B

All questions carry equal marks of 12.

Q.No.		Questions	KL	CO	M
PART-A					
1	a	What are the objectives of agile methods in software development?	1	1	2
	b	Define ITIL.	1	2	2
	c	What is the need for Devops adoption in software development?	2	2	2
	d	List out the components of DevOps.	1	3	2
	e	What is meant by Continuous Integration?	2	3	2
	f	How is DevOps different from agile methodology?	2	4	2
PART-B					
2	a	What is SDLC? Explain the phases of SDLC.	2	1	6
	b	Explain the principles of agile software development.	2	1	6
3	a	Explain the cycles of agile software development.	2	1	6
	b	Write about important features and advantages of ITIL.	1	1	6
4	a	Explain different phases and components of DevOps architecture with a neat sketch.	2	2	6
	b	Write about the functional building blocks of DevOps delivery pipeline.	2	2	6
5	a	Describe the technology aspects, agile capabilities, tool stack implementation with respect to DevOps adoption in projects.	3	2	12
6	a	Write short notes on continuous integration, continuous delivery and deployment.	2	3	6
	b	Summarize the metrics used to track CICD practices.	2	4	6
7	a	Describe the process of DevOps maturity Assessment.	3	3	6
	b	Describe the stages of Devops maturity model.	2	4	6

KL: Blooms Taxonomy Knowledge Level

CO: Course Outcome

M: Marks
