1.1.2 Det	1.1.2 Details of Programmes where syllabus was carriedout during the Academic Year 2020 - 2021									
		R19		R19 Vs R20				R20		
S. No	Course Code	Course Name	Change Details	% of Change	weightage	S. No	Course Code	Course Name		
1	19BCC1TH01	Communicative English-I	added	10	0.1	1	R20CC1101	Technical and Communicative English I		
2	19BCC1TH03	Linear Algebra & Calculus	Added	5	0.05	2	R20CC1102	Matrix Algebra & Calculus		
3	19BCC1TH02	Engineering Physics	Added	5	0.05	3	R20CC1203	Engineering Physics		
4	19BCC1TH04	Engineering Drawing	No Change	0	0	4	R20CC1207	Engineering Drawing		
5	19BCC1TH05	Problem Solving With Python	Removed							
6	19BCC2TH11	Engineering Mechanics	Added	5	0.05	5	R20CC1107	Engineering Mechanics		
7	19BCC2TH01	Communicative English-II	Removed							
8	19BCC2TH02	Differential Equations & Vector Calculus	No Change	0	0	6	R20CC1201	Differential Equations and Vector Calculus		
9	19BCC2TH03	Engineering Chemistry	No Change	0	0	7	R20CC1103	Engineering chemistry		
10	19BCC1LB02	Engineering Physics Laboratory	Added	20	0.2	8	R20CC12L5	Engineering Physics Lab		
11	19BCC1LB03	Python Lab	Removed							
12	19BCC2LB03	Engineering Chemistry Laboratory	Removed			9	R20CC11L5	Engineering Chemistry Lab		
13	19BCC1LB01	English Communication Skills Lab - I	Merged	20	0.2	10	R20CC11L1	Soft skills & Communication Skills Lab-I		
14	19BCC4LB01	English Communication Skills Lab - II	Merged	20	0.2	10	K20CCTILI	Soft skins & Communication Skins Lau-i		
15	19BCCMC01	Environmental Studies	Removed							
16	19BCC2LB02	Elements Of Electrical And Electronics Engineering Lab	Added	50	0.5	11	R20CC12L6	Elements of mechanical and Ele. And engg.lab		
17	19BCC2TH14	Elements Of Electrical And Electronics Engineering	Added	50	0.5	12	R20CE1212	Elements of mechanical and Ele. And engg.		
18	19BCC1LB04	Engineering Workshop Practice	Nochange	0	0	13	R20CC12L4	Engineering Workshop		
19	19BCC2LB07	IT Workshop	Removed							
20	19BCC2MC01	Constitution Of India	Nochange	0	0	14	R20CCMC2	Constitution of India		
21			New	100	1	15	R20CC1105	Problem Solving Using C		
23			New	100	1	16	R20CC11L2	Problem Solving Using C Lab		
24			New	100	1	17	R20CE1216	elements of building science		
		R16		R16 Vs R19				R19		
25	R16CE2101	Probability & Statistics	Change	45	0.45	18	19BCC4TH01	Complex Variables, Probability & Statics		
26	R16CE2106	Mechanics Of Solids	No change	0	0	19	19BCE3TH05	Mechanics Of Solids		
27	R16CE2102	Building Material And Construction	Change	3	0.03	20	19BCE3TH04	Building Material And Construction		
28	R16CE2104	Surveying-I	Merged	16	0.16	21	19BCE3TH06	Surveying		
29	R16CE2204	Surveying -II	wieigeu	10	0.10	21	19DCE31 HU0	Surveying		
30	R16CE2105	Fluid mechanics	Change	5	0.05	22	19BCE4TH04	Fluid Mechanics And Hydraulic Machinery		
31	R16CE2103	Building Planning & Drawing	Change	17	0.17	23	19BCE4TH03	Building Planning, Service Design & Drawing		
32	R16CE4201	Business Management Concepts For Engineers	Change	17	0.17	24	19BCC3TH01	Business Management Concepts For Engineers		
33	R16CE2202	Hydraulics And Hydraulic Machinery	No change	0	0	25	19BCE4TH04	Fluid Mechanics And Hydraulic Machinery		
34	R16CE2201	Structural Analysis-I	No change	0	0	26	19BCE4TH02	Structural Analysis-I		

35	R16CE2203	Engineering Geology	Change	3	0.03	27	19BCE3TH02	Engineering Geology
36	R16CE4212	Geographic Information System	No change	0	0	28	19BCE4OE11	Geographic Information System
37			New	100	1	29	19BCE3TH03	Numerical Methods & Transformations
38	R16CE21L1	Suverveying Laboratory-I	No change	0	0	30	19BCE3LB03	Suverveying Lab
39	R16CE21L2	Mechanics Of Solids Lab	No change	0	0	31	19BCE3LB01	Mechanics Of Solids Lab
40	R16CE22L2	Fluid mechanics And Hydraulic Machinery Lab	No change	0	0	32	19BCE4LB02	Fluid mechanics And Hydraulic Machinery Lab
41	R16CE22L3	Engineering Geology Lab	No change	0	0	33	19BCE3LB02	Engineering Geology Lab
42	R16CC22MNC1	Quantitative Aptitude And Reasoning	No change	0	0	34	19BCC3MC01	Quantitative Aptitude And Reasoning
43			New	100	1	35	19BCC4LB01	Enhancing Communication Skill Lab-II
44			New	100	1	36	19BCE4LB03	Computer Aided Building Drafting
45			New	100	1	37	19BCC4MC01	Community Services
46			New	100	1	38	19BCE4OE12	Public Health Engineering

Total weightage4.65Total weightage6.06Total Change in % (1)27.35Total Change in % (1)28.86Total no. of courses in R202017Total no. of courses in R201921

 $\label{eq:control_control_control} Total\ Change = ((total\ weightage\ of\ R2019\ Vs\ R2020 + total\ weightage\ of\ R2019\ Vs\ R2016)/(no.\ of\ courses\ in\ R2020 + no.\ of\ courses\ in\ R2019))*100\\ Total\ Change \qquad 28.18$

C No	R19		R19 Vs R20				R20	
S. No	Course Code	Course Name	hange Detai	% of Change	weightage	S. No	Course Code	Course Name
1	19BCC1TH01	Communicative English -I	Changed	10	0.1	1	R20CC1101	Technical and Communicative English -I
2		Linear Algebra & Calculus	No Change	0	0	2	R20CC1102	Linear Algebra and Calculus
3		Electronic Devices and Logic Design	No Change	0	0	3	R20CC1208	Electronic Devices and Logic Design
4		Engineering Chemistry	No Change	0	0	4	R20CC1204	Engineering Chemistry
5	19BCC1TH10	C Programming	No Change	0	0	5	R20CC1105	Problem Solving Using C
6	L9BCC1MC02	Constitution of INDIA	Removed			6		
7	19BCC2TH01	Communicative English -II	Removed			7		
8	19BCC2TH07	Engineering Physics	Changed	5	0.05	8	R20CC1104	Applied Physics
9		Probability & Statistics	Removed			9		
10	19BCI2TH12	Python Programming	Changed	5	0.05	10	R20CC1206	Problem Solving using Python
11	19BCI2TH10	Numerical Methods And Vector Calculus	Changed	10	0.1	11	R20CC1202	Numerical Methods and Statistics
12	19BCC2TH09	Engineering graphics	Removed			12		
13	L9BCC2MC02	Environmental Studies	No Change	0	0	13	R20CCMC1	Environmental Studies
14	19BCC1LB01	English Communication Skills Lab - I	Changed	5	0.05	14	R20CC11L1	Soft Skills and Communication Skills Lab
15		Python Programming Lab	No Change	0	0	15	R20CC12L1	Problem Solving using Python Lab
16	19BCC1LB05	Engineering Chemistry Lab	No Change	0	0	16	R20CC12L2	Engineering Chemistry Lab
17	19BCC1LB07	C Programming Lab	No Change	0	0	17	R20CC11L2	Problem Solving Using C Lab
18	19BCC2LB06	Engineering Physics Lab	Changed	5	0.05	18	R20CC11L4	Applied Physics Lab
19	19BCC2LB07	IT Workshop	Changed	20	0.2	19	R20CC12L1	CSE Workshop
20			New	100	1	20		R Programming Lab
21			New	100	1	21	R20CS1108	LINUX Programming Lab
					2.6			
	R16		R16 Vs R19				R19	
22		Mathematical Foundations of Computer Science	Changed	10	0.1	22		Mathematical Foundations of Computer Science
23		Java Programming	Changed	15	0.15	23		OOPs Through Java
24		Data Structures	Changed	10	0.1	24		Data Structures
25		Computer Organization	Changed	5	0.05	25		Computer Organization
26		Business Management Concept for Engineers	No Change	0	0	26		Business Management Concept for Engineers
27		Formal Languages and Automata Theory	No Change	0	0	27		Formal Languages and Automata Theory
28		Statistical Programming with R	New	100	1	28		Entrepreneurship and Innovation
29		Advanced Java and Web Technologies	No Change	0	0	29		Advanced Java and Web Technologies
30		Database Management Systems	No Change	0	0	30		Database Management Systems

31		Software Engineering	No Change	0	0	31		Software Engineering
32		Advanced Java and Web Technologies Lab	No Change	0	0	32		Advanced Java and Web Technologies Lab
33		Java Programming Lab	Changed	10	0.1	33		Java Programming Lab
34		Free Open Source Software (FOSS) Python Lab	Changed	15	0.15	34		Python Lab
35		Advanced Communication Skills Lab	Changed	10	0.1	35		Advanced Communication Skills
36		Operating Systems & Compiler Design Lab	Changed	20	0.2	36		OS and UML Lab
37		Database Management Systems Lab	No Change	0	0	37		Data Base Management Systems Lab
Total weight	tage	2.6				Total weight	2	1.95
Total Change	e in % (1)	12.38				Total Chang	e in % (1)	12.19
of courses	in R2020	2:	L			Total no. of co	ourses in R20:	1 16
		<u> </u>						

Total Change= ((total weightage of R2019 Vs R2020+total weightage of R2019 Vs R2016)/(no. of courses in R2020+no. of courses in R2019))*100

12.285

Total Change

C N-	R19		R19 Vs R20				R20	
S. No	Course Code	Course Name	Change Details	% of Change	weightage	S. No	Course Code	Course Name
1		Communicative English -I	Changed	10	0.1	1	R20CC1101	Technical and Communicative English -I
2		Linear Algebra & Calculus	No Change	0	0	2	R20CC1102	Linear Algebra and Calculus
3		Electronic Devices and Logic Design	No Change	0	0	3	R20CC1208	Electronic Devices and Logic Design
4		Engineering Chemistry	No Change	0	0	4	R20CC1204	Engineering Chemistry
5		C Programming	No Change	0	0	5	R20CC1105	Problem Solving Using C
6		Constitution of INDIA	Removed			6		
7		Communicative English -II	Removed			7		
8		Engineering Physics	Changed	5	0.05	8	R20CC1104	Applied Physics
9		Probability & Statistics	Removed			9		
10		Python Programming	Changed	5	0.05	10	R20CC1206	Problem Solving using Python
11		Numerical Methods And Vector Calculus	Changed	10	0.1	11	R20CC1202	Numerical Methods and Statistics
12		Engineering graphics	Removed			12		
13		Environmental Studies	No Change	0	0	13	R20CCMC1	Environmental Studies
14		English Communication Skills Lab - I	Changed	5	0.05	14	R20CC11L1	Soft Skills and Communication Skills Lab
15		Python Programming Lab	No Change	0	0	15	R20CC12L1	Problem Solving using Python Lab
16		Engineering Chemistry Lab	No Change	0	0	16	R20CC12L2	Engineering Chemistry Lab
17		C Programming Lab	No Change	0	0	17	R20CC11L2	Problem Solving Using C Lab
18		Engineering Physics Lab	Changed	5	0.05	18	R20CC11L4	Applied Physics Lab
19		IT Workshop	Changed	20	0.2	19	R20CC12L10	CSE Workshop
20			New	100	1	20	R20CC12L3	R Programming Lab
21			New	100	1	21	R20CS1108	LINUX Programming Lab
					2.6			
	R16		R16 Vs R19				R19	
22				100	1			Business Managemennt Concept For Engineers
23				100	1			Front End Web Technologies
24				100	1			OOPS Through Java
25				100	1			Mathematical Foundation Of Compputer Science
26				100	1			Data Structures
27				100	1			Computer Organization
28				100	1			DataBase Management Systems
29				100	1			Formal Languages & Automata Theory
30				100	1			Internet Of Things

31				100	1			Computer Networks
32				100	1			OEI
33				100	1			Data Structures Lab
34				100	1			Front End Web Technologies
35				100	1			Java Lab
36				100	1			IOT lab
37				100	1			English & Communication Skills Lab-2
				100	1			DataBase Management Systems
Total w	eightage/	2.6				Total weight	2	17
Total C	hange in % (1)	12.38				Total Chang	e in % (1)	45.95
f cours	es in R2020	21				Total no. of co	ourses in R2019	37
			•					
Total C	Change= ((total v	weightage of R2019 Vs R2020+tota	ıl weightage o	f R2019 Vs I	R2016)/(no.	of courses i	n R2020+no. of	courses in R2019))*100
		Total Change	33.79					

	R2013			2013 Vs 2016			R2016		2016 Vs 2019			R2019		
Sl. No.	Course Code	Course Name	Change Details	% of Change	weight age	Course Code	Course Name	Change Details	% of Change	weightage	Course Code	Course Name	Change Details	
		C PROGRAMMING AND DATA STRUCTURES	No Change	0	0		C Programming & Data Structures	No change	0	0	19MCA1TH01	C Programming & Data Structures	No change	
		DIGITAL LOGIC AND COMPUTER ORGANIZATION	No Change	20	0.2		Computer Organization	No change	0	0	19MCA1TH02	Computer Organization	No change	
		DISCRETE MATHEMATICAL STRUCTURES AND GRAPH THEORY	No Change	0	0		Mathematical Foundations of Computer Science	No change	0	0	19MCA1TH03	Mathematical Foundations of Computer Science	Change	
		PROBABILITY AND STATISTICAL APPLICATIONS	No Change	0	0		Probability and Statistical Applications	No change	0	0	19MCA1TH04	Probability & Statistics	Removed	
		ACCOUNTING AND FINANCIAL MANAGEMENT	No Change	0	0		Accounts and Financial Management	No change	0	0	19MCA1TH05	Accounts and Financial Management	Remove	
			New	100	1		Verbal Ability	Removed	0	0				
		OOPS THROUGH JAVA	No Change	0	0		OOPs Through Java	No change	0	0	19MCA2TH02	Object Oriented Programming	no change	
		OPERATING SYSTEMS	No Change	0	0		Operating Systems	No change	0	0	19MCA2TH03	Operating Systems	no change	
		ORGANIZATIONAL STRUCTURES AND HUMAN RESOURCE MANAGEMENT	No Change	0	0		Organisational Structure and Personnel Management	No change	0	0	19MCATH05	Organizational Structure and Personnel Management	Removed	
		OPTIMIZATION TECHNIQUES	No Change	0	0		Optimization Techniques	No change	0	0	19MCA2TH04	Operations Research	Removed	
		BUSINESS DATA PROCESSING	Removed	0	0									
			New	100	1		Quantitative Aptitude and Reasoning	Removed	0	0				
		DATA BASE MANAGEMENT SYSTEMS	No Change	0	0		Database Management System	no change	0	0	19MCA2TH01	Database Management Systems	No change	
		COMPUTER COMMUNICATION	No Change	0	0		Computer Networks	no change	0	0	19MCA3TH02	Computer Networks	No change	
		UNIX PROGRAMMING	Removed	0	0									
		MANAGEMENT INFORMATION SYSTEM	Removed	0	0									

DESIGN AND ANALYSIS OF ALGORITHMS	No Change	0	0	Design Algori	n And Analysis of ithms	no change	0	0	19MCA3TH03	Design And Analysis of Algorithms	No change
	New	100	1		n values & sional ehics	Removed	0	0			New
SOFTWARE ENGINEERING	No Change	0	0	Softwa	are Engineering	no change	0	0	19MCA3TH01	Software Engineering	No change
ADVANCED JAVA & WEB TECHNOLOGIES	No Change	0	0	Web T	Technologies	change	16	0.16	19MCA3TH04	Web Development & Digital Marketing	No change
DATA WAREHOUSING AND MINING	No Change	0	0	Dataw Minin	varehousing and	no change	0	0	19MCA4TH03	Data Warehousing and Mining	No change
	New	100	1	Advan Comn	nced nunication Skills	Removed	0	0			
INFORMATION SECURITY	No Change	0	0		ork Security & ography	no change	0	0	19MCA4TH02	Network Security & Cryptography	No change
NETWORK PROGRAMMING	Removed	0	0			New	100	1	19MCA4PE09	Network Programming	Removed
OBJECT ORIENTED ANALYSIS AND DESIGN (USING UML)	No Change	0	0	Object and De	t Oriented Analysis esign	no change	0	0	19MCA4TH01	Object Oriented Analysis & Design	No change
						New	100	1	19MCA3TH05	Linux Programming	No change
	New	0	1		Science with R amming	New	100	1	19MCA3MC01	Community Services	Removed
LABORATORY											
ENGLISH LANGUAGE COMMUNICATION SKILLS LAB	Removed	0	0			New	100	1	19MCA1LB03	English Proficiency Lab	New
C PROGRAMMING AND DATA STRUCTURES LAB	No change	0	0		gramming & Data ures Lab	No change	0	0	19MCA1LB01	C Programming & Data Structures Lab	No change
DIGITAL LOGIC AND COMPUTER ORGANIZATION LAB	Removed	0	0								
	New	100	1	Inform Works	nation Technology shop	No change	0	0	19MCA1LB02	Information Technology Workshop	Removed
OOPS THROUGH JAVA LAB	No change	0	0	OOPs LAB	Through Java	No change	0	0	19MCA2LB02	Object Oriented Programming Lab	No Change
BUSINESS DATA PROCESSING LAB	Removed	0	0								New
DATA BASE MANAGEMENT SYSTEMS LAB	No change	0	0	Databa System	ase Management n Lab	No change	0	0	19MCA2LB01	Database Management Systems Lab	No change

UNIX PROGRAMMING LAB	No change	0	0		Unix Programming LAB	No change	0	0	19MCA3LB02	Linux Programming Lab	Change
ADVANCED JAVA & WEB TECHNOLOGIES LAB	No change	0	0		Web Technologies LAB	Change	16	0.16	19MCA4LB02	Web Development & Digital Marketing Lab	No Change
DATA WAREHOUSING AND MINING LAB	No change	0	0		Data Warehousing and Mining LAB	No change	0	0	19MCA4LB02	Data Warehousing and Mining Lab	Removed
UML LAB	No change	0	0		Object Oriented Analysis and Design LAB(UML)	No change	0	0	19MCA4LB01	Object Oriented Analysis & Design(UML) Lab	Change
NETWORK PROGRAMMING LAB	Removed	0	0								
	New	100	1		Mobile Apps Development LAB	No change	0	0	19MCA4LB03	Android App Development Lab	Removed
	New	100	1		Frameworks Lab	New	100	1	19MCA5LB03	Frameworks & Devops Lab	Removed
	New	100	1		OpenSource Technologies LAB	Removed	0	0			
	New	100	1		Data Science with R Programming LAB	Removed	0	0			
	New	100	1		Software Testing Lab	Removed	0	0	19MCA5LB01	Software Testing Methodology Lab	Removed
						New	100	1	19MCA2LB03	Python Programming Lab	Removed
						New	100	1	19MCA3LB03	Statistical Programming with R Lab	No change
						New	100	1	19MCA5LB02	Machine Learning using python Lab	No Change
ELECTIVES											
MOBILE COMPUTING	No change	0	0		Mobile Computing	No change	0	0	19MCA4PE05	Mobile Computing	Removed
HUMAN COMPUTER INTERACTION	No change	0	0		Human Computer Interaction	Removed	0	0			New
ERP & SUPPLY CHAIN MANAGEMENT	Removed	0	0								
SOFTWARE TESTING METHODOLOGIES	No change	0	0		Software Testing Methodologies	No change	0	0	19MCA5TH01	Software Testing Methodology	Removed
ARTIFICIAL INTELLIGENCE	No change	0	0		Artificial Intelligence & Machine Learning	No change	0	0	19MCA5TH02	Artificial Intelligence & Machine Learning	No change
	ADVANCED JAVA & WEB TECHNOLOGIES LAB DATA WAREHOUSING AND MINING LAB UML LAB NETWORK PROGRAMMING LAB ELECTIVES MOBILE COMPUTING HUMAN COMPUTER INTERACTION ERP & SUPPLY CHAIN MANAGEMENT SOFTWARE TESTING METHODOLOGIES ARTIFICIAL	LAB ADVANCED JAVA & WEB TECHNOLOGIES LAB DATA WAREHOUSING AND MINING LAB NO change UML LAB NO change NETWORK PROGRAMMING LAB New New New New New New New Ne	ADVANCED JAVA & WEB TECHNOLOGIES LAB DATA WAREHOUSING AND MINING LAB NO change UML LAB NO change 0 NETWORK PROGRAMMING LAB New 100 New 100	LAB	LAB	ADVANCED JAVA & WEB TECHNOLOGIES LAB ADVANCED JAVA & WEB TECHNOLOGIES LAB ADVANCED JAVA & WEB TECHNOLOGIES AND MINING LAB AND MINING LAB AND MINING LAB AND MINING LAB AND Change AND Change AND MINING LAB AND Change AND Chan	ADVANCED JAVA & WEB TECHNOLOGIES LAB No change 0 0 0 Web Technologies LAB Change DATA WAREHOUSING AND MINING LAB No change 0 0 0 Data Warehousing and Mining LAB No change 0 0 0 Object Oriented Analysis and Design LAB (UML LAB No change 0 0 0 Mobile Apps Development LAB No change New 100 1 Prameworks Lab New 100 1 Frameworks Lab New 100 1 Prameworks Lab New 100 1 OpenSource Technologies LAB Removed New 100 1 Software Testing Lab Removed New 100 New 100 1 Software Testing Lab Removed New 100 New New New New 100 New	ADVANCED JAVA & Web Technologies LAB	ADVANCED JAVA & WEB TECHNOLOGIES No change 0 0 Web Technologies LAB Change 16 0.16	LAB	LAB No change 0 0 Units Programming LAB No change 16 0.16 19MCA4LB02 Digital Marketing LAB DATA WAREHOUSING AND MINING LAB No change 0 0 Data Warehousing and Mining LAB No change 0 0 19MCA4LB02 Digital Marketing Lab Object Oriented Analysis and Data Warehousing and Mining LAB No change 0 0 19MCA4LB01 Object Oriented Analysis & Design(UMI.) Lab No change 0 0 19MCA4LB01 Object Oriented Analysis & Design(UMI.) Lab New 100 1 Development LAB No change 0 0 19MCA4LB01 Object Oriented Analysis & Design(UMI.) Lab New 100 1 Prameworks Lab No change 0 0 19MCA4LB01 Object Oriented Analysis & Design(UMI.) Lab Object Oriente

COMPUTER GRAPHICS	Removed	0	0							
ANIMATION & GAMING	Removed	0	0							
COMPUTER FORENSICS	Removed	0	0		New	100	1	19MCA5PE04	Computer Forensics	Removed
E-COMMERCE	No change	0	0	E-Commerce	No change	0	0	19MCA5PE06	E-Commerce	No change
MIDDLE WARE TECHNOLOGIES	Removed	0	0							,
MULTIMEDIA APPLICATION DEVELOPMENT	Removed	0	0							
SOFTWARE PROJECT MANAGEMENT	No change	0	0	Software Project Management	Removed	0	0			
	New	100	1	Cyber Security	No change	0	0	19MCA5PE05	Cyber Security	No change
	New	100	1	Internet of Things	No change	0	0	19MCA4PE07	Internet of Things	No change
	New	100	1	Distributed Operating Systems	No change	0	0	19MCA4PE08	Distributed Operating Systems	Removed
	New	100	1	Cloud Computing	No change	0	0	19MCA5TH03	Cloud Computing	No change
	New	100	1	Software Design Methodologies	No change	0	0	19MCA4PE04	Software Design Methodologies	Removed
					New	100	1	19MCA4PE06	Blockchain Technology	No change
					New	100	1	19MCA5PE07	Agile Methodology & Devops	Removed
					New	100	1	19MCA5PE08	Embedded & Real Time Operating Systems	Removed
					New	100	1	19MCA5PE09	Big Data Analytics	No change
										New
										New
	New	100	1	MOOCS	New	100	1	19MCA4MC01	MOOCS(MC)	No change
	Total weight	age	17.2		Total We	eigtage	14.32			Total We

		Total Change in % (1)						
	Total no. of courses in R2013	44	Total no. R2016	of courses in	47		Total no. of courses in R2019	50

0

Total Change 26.96453901

19 Vs 2020			R2020
% of Change	weight age	Course Code	Course Name
0	0	R20MCA101	C Programming and Data Structures
0	0	R20MCA102	Computer Organization
50	0.5	R20MCA105	Mathematical and Statistical Foundations
0	0		
0	0		
	-		
0	0	R20MCA202	Object oriented Programming using JAVA
0	0	R20MCA104	Operating Systems
0	0		
0	0		
0	0	R20MCA103	Database Management Systems
0	0	R20MCA201	Computer Networks

0	0	R20MCA204	Design and Analysis of Algorithms
		R20MCA308	Human Resource Management
0	0	R20MCA203	Software Engineering
0	0	R20MCA302	Web Technologies
0	0	R20MCA207	Data warehousing and Mining
0	0	R20MCA303	Network Security and Cryptography
0	0		
0	0	R20MCA307	Unified Modelling Language
0	0	R20MCA206	Advanced Unix Programming
0	0		
100	1	R20MCA2L3	Employability Skills Lab
0	0	R20MCA1L1	C Programming & Data Structures Lab
0	0		
0	0	R20MCA2L1	Object Orientd Programming Lab
100	1	R20MCA3L1	Machine Learning with Python
0	0	R20MCA1L2	Database Management Systems Lab

50	0.5	R20MCA2L3	Operating Systems & Linux Lab
0	0	R20MCA3L2	Web Technologies Lab
0	0		
50	0.5		Network Security, Cryptography & UML Lab
0	0		
0	0		
0	0		
0	0		
0	0	R20MCA2L2	Statistical Programming with R
0	0	R20MCA3L1	Machine Learning using python Lab
0	0		
100	1	R20MCA406	Human Computer Interaction
0	0		
0	0	R20MCA205	Artificial Intelligence

			1
0	0		
0	0	R20MCA403	E-Commerce
0	0	R20MCA405	Cyber Security
0	0	R20MCA306	Internet of Things
0	0		
0	0	R20MCA304	Cloud Computing
0	0		
0	0	R20MCA401	Block Chain technology
0	0		
0	0		
0	0	R20MCA404	Big Data Analytics
100	1	R20MCA305	Digital Image Processing
100	1	R20MCA402	Design Patterns
0	0	R20MCA2MC, 3MC,4MC1,4 MC2	MOOCS-1,2,3,4
ightage	6.5		

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R20		
Course Code	Course Name	
R20CC1101	Technical and Communicative English-I	
	Matrix Algebra and Calculus	
	Engineering Mechanics	
	Engineering Chemistry	
R20ME1106	Problem Solving using Python	
	Engineering Physics	
	Engineering Drawing	
	Engineering Physics Lab	
R20CCMC2	Constitution of India (MC)	
<u>+</u>		
	Differential Equations and Vector Calculus	
	Material Science and Metallurgy	
	Elements of Electrical and Electronics Engg.	
	Engineering Workshop	
	Elements of Electrical and Electronics Engg. Lab	
R20CC11L5	Engineering Chemistry Lab	
+		
R19		
Course Code	Course Name	
19BCC3TH01	Numerical Methods & Transformations	
19BCC2TH14	Elements of Electrical & Electronics Engineering	
19BME3TH06	Mechanics of Solids	
19BME3TH04	Materials Science and Metallurgy	
19BME3TH05	Thermodynamics	
10BME3TH02	Fluid Mechanics & Hydraulic Machinery	
1)BME311102	-	
19BME3TH03	Machine Drawing & Basic Design Engg. Soft. Lab.	
19BME4TH01	Kinematics of Machinery	
19BME4TH04	Applied Thermo Dynamics	
	R20CC1101 R20CC1102 R20CC1107 R20CC1103 R20ME1106 R20CC1203 R20CC1207 R20CC12L5 R20CCMC2 R20CC12L1 R20ME1218 R20ME1214 R20CC12L4 R20CC12L7 R20CC11L5 Course Code 19BCC3TH01 19BCC3TH01 19BME3TH06 19BME3TH05 19BME3TH02 19BME3TH03	

29		Manufacturing Technology	Changed	10	0.1		19BME4TH02	Manufacturing Technology
30		Machine Dynamics & Vibrations	Removed	10	0.1			
	Total weightage				1.45			
	Total Change in % (1)							
		Total no. of courses in R2020					Total no. of courses in	R2019
		Total Change= ((total weightage of R2019 Vs R202	20+total weight	age of R20)19 Vs R2016)/(no	o. of course	s in R2020+no. of o	courses in R2019))*100
			Total Change	12.8				

		R19		R19 Vs R20				R20
S. No	Course Code	Course Name	Change Details	% of Change	weightage	S. No	Course Code	Course Name
			,	, and the same of		3. 140		
1	19BCC1TH01	Communicative English-I	added	10	0.1		R20CC1101	Technical and Communicative English-I
2	19BCC1TH02	Engineering Physics	added	5	0.05		R20EC1205	Applied Physics
3	19BCC1TH03	Linear Algebra & Calculus	Added	5	0.05		R20CC1102	Matrix Algebra and Calculus
4	19BCC1TH09	Engineering Graphics	No Change	0	0		R20EC1110	Engineering Graphics
5	19BCC1H05	Problem Solving with Python	No Change	0	0		R20CC1206	Problem Solving using Python
6	19BCC1LB01	English Communication Skills Lab – I	Added	10	0.1		R20CC11L1	Soft Skills and Communication Skills Lab
7	19BCC1LB02	Engineering Physics Lab	Removed	10	0.1		R20CC12L10	Applied Physics Lab
8	19BCI2LB09	Problem Solving with Python Lab	No Change	0	0		R20CC12L1	Problem Solving using Python Lab
9	19BCC1MC01	Environmental Studies	Removed	100	1			
10	19BCC2TH01	Communicative English-II	Removed	100	1			
11	19BCC2TH03	Engineering Chemistry	Nochange	0	0		R20CC1103	Engineering Chemistry
12	19BCC2TH02	Differential Equations & Vector Calculus	Added	5	0.05		R20CC1201	Differential Equations and Vector Calculus
13	19BEC2TH04	Network Analysis	Nochange	0	0		R20EC1215	Network Analysis
14	19BEC2TH05	Business Management Concepts for Engineers	Nochange	0	0			
15	19BEC2TH06	C Programming	Nochange	0	0		R20CC1105	Problem solving using C
16	19BCC2LB03	Engineering Chemistry Lab	Nochange	0	0		R20CC11L5	Engineering Chemistry Lab
17	19BEC2LB04	C Programming Lab	Nochange	0	0		R20CC11L2	Problem solving using C Lab
18	19BEC2LB05	Electronic Workshop & IT Workshop	Removed	100	1			
19	19BCC2MC01	Constitution of India	Nochange	0	0		R20CCMC2	Constitution of India
			New	100	1		R20EC1219	Data Structures
			New	100	1		R20CC12L8	Data Structures Lab
					5.45			
		R16		R16 Vs R19				R19
	Course Code	Course Name	Change Details	% of Change	weightage	S. No	Course Code	Course Name
20	R16CC2101	Business Management Concepts for Engineers	Nochange	0	0		19BEC2TH05	Business Management Concepts for Engineers
21	R16EC2102	Electronic Devices and Circuits	CHANGED	5	0.05		19BEC3TH02	Electronic Devices and Circuits
22	R16EC2105	Data Structures					19BEC3TH05	Data Structures
23	R16EC2103	Signals and Systems	CHANGED	10	0.1		19BEC3TH03	Signals and Systems
24	R16EC2106	Electrical and Mechanical Technology						
25	R16EC2202	Electronic Circuit Analysis	CHANGED	15	0.15		19BEC4TH01	Electronic Circuit Analysis
			NEW	100	1		19BEC4TH03	Random Variables and Stochastic Processes
26	R16EC2201	Switching Theory and Logic Design	Nochange	0	0		19BEC4TH02	Switching Theory and Logic Design
27	R16EC2205	Electromagnetic Waves and Transmission Lines	Nochange	0	0		19BEC4TH05	ElectromagneticWaves and Transmission Lines
28	R16EC2204	Analog Communications + Digital Communications	Nochange	0	0		19BEC4TH04	Communication Systems
					1.3			-
	Total weightage	1					Total weightage	
	Total Change in % (1)						Total Change in 9	% (1)
							-	
		Total no. of courses in R2020		†			Total no. of course	s in R2019
		TOTAL HO. OF COURSES HE NAUZU	1	1			rotarno. Or course	J III NEULJ

Total Change= ((total weightage of R2019 Vs R2020+total weightage of R2019 Vs R2016)/(no. of courses in R2020+no. of courses in R2019))*100									
Tota	otal Change	18.75							

1.1.2 Details of Programmes where syllabus was carriedout during the Academic Year 2020 - 2021
1.1.2 Details of Programmes where syllabus was carried out during the Academic Year 2020 - 2021

		R19		R19 Vs R20				R20
S. No	Course Code	Course Name	Change Details	% of Change	weightage	S. No	Course Code	Course Name
1	19BCC1TH01	Communicative English-I	Removed					
2	19BCC1TH03	Linear Algebra & Calculus	Added	5	0.05	1	R20CC1102	Matrix Algebra & Calculus
3	19BCC3TH01	Numerical Methods & Transformations	Removed					
4	19BCC2TH07	Engineering Physics	Added	5	0.05	2	R20CC1104	Applied physics
5	19BCC1TH10	C Programming	No Change	0	0	3	R20CC1105	Problem Solving Using C
6	19BCC2TH09	Engineering Graphics	Added	5	0.05	4	R20EE1110	Engineering Drawing and Design
7	19BCC2TH01	Communicative English-II	Removed					
8	19BCC2TH02	Differential Equations & Vector Calculus	No Change	0	0	5	R20CC1201	Differential Equations and Vector Calculus
9	19BCC1TH07	Engineering Chemistry	Removed					
10	19BEE3TH02	Electronic Devices and Circuits	Nochange	0	0	6	R20EE1209	Electronic Devices and Circuits
11	19BEE2TH13	Electrical Circuit Analysis-I	Added	20	0.2	7	R20EE1213	Electrical Circuit Analysis-I
12	19BCC2LB06	Engineering Physics Lab	Added	20	0.2	8	R20CC12L10	Applied Physics Lab
13	19BCC1LB05	Engineering Chemistry Lab	Removed					
14	19BCC1LB01	English Communication Skills Lab -	Merged	20	0.2	9	R20CC11L1	Soft skills & Communication Skills Lab-I
15	19BCC4LB01	English Communication Skills Lab - II	Weiged	20	0.2		RZOCCITEI	Soft skins & Communication Skins Lau-1
16	19BCC1LB07	C Programming Lab	Nochange	0	0	10	R20CC11L2	Problem Solving Using C Lab
17	19BEE1TH08	Basics in Mechanical and Civil Engineering	Added	40	0.4	11	R20EE1109	Basics in Mechanical and Civil Engineering
18	19BEE3LB01	Electronic Devices and Circuits Lab	Added	20	0.2	12	R20EE12L9	Electronic Devices and Circuits Lab
19	19BEE1LB06	IT Workshop	Removed					
			New	100	1	13	R20CC1101	Technical and Communicative English I
			New	100	1	14	R20EE11L6	Basics in Mechanical and Civil Engineering Lab
			New	100	1	15	R20EE1217	Dta Structeres using C
			New	100	1	16	R20CC12L11	Dta Structeres using C Lab
			New	100	1	17	R20CCMC1	Constitution of India
		R16		R16 Vs R19	ı			R19
20	R16CC1202	Integral Transforms and Vector Calculus	Removed	40	0.4	18	19BCC3TH01	Numerical Methods & Transformations

R16E2102 R16E2101 Electronic Devices AND No change 0			ELECTRONIC DEVICES AND						
R16EE2104 Fluid Mechanics & Prime movers Removed	21	R16EE2102		No change	0	0	19	19BEE3TH02	Electronic Devices and Circuits
R16EE2105 Electrical Machines I No change 0 0 21 19BEE3TH04 Electrical Machines-I	22	R16EE2101	Electrical Circuit Analysis II	No change	0	0	20	19BEE3TH03	Electrical Circuit Analysis - II
R16EE2103 Electromagnetic Fields No change 0 0 22 19BEE3TH05 Electro Magnetic Fields	23	R16EE2104	Fluid Mechanics & Prime movers	Removed					
R16EE21L2 Electronics Devices & Circuits Lab Added 20 0.2 24 19BEE3TH06 Electronic Devices and Circuits Lab	24	R16EE2106	Electrical Machines I	No change	0	0	21	19BEE3TH04	Electrical Machines-I
27 R16EE21L2 Electronics Devices & Circuits Lab Added 20 0.2 24 19BEE3LB01 Electronic Devices and Circuits Lab 28 R16EE21L1 Electrical Circuit Lab Added 20 0.2 25 19BEE3LB02 Electrical Circuit Analysis Lab 29 R16EE2105 COMPLEX VARIABLES AND STATISTICAL METHODS Added 30 0.3 26 19BCC4TH01 Complex Variables, Probability & Statistics 30 R16EE2202 Digital Electronics No change 0 0 27 19BEE4TH03 Digital logic and circuits 31 R16E2205 Electrical Machines II No change 0 0 28 19BEE4TH03 Electrical Machines-II 32 R16CC12L1 Electrical Machines II Lab Added 40 0.4 29 19BCC4LB01 English Communication Skills Lab - II 33 R16EE2212 Analog & Digital Circuits Lab Added 20 0.2 30 19BEE4LB03 Electrical Machines Lab-I 34 R16EC221MC1 Quantitative Aptitude and Reasoning Agent Planting Agent Planti	25	R16EE2103	Electromagnetic Fields	No change	0	0	22	19BEE3TH05	Electro Magnetic Fields
R16EE21L1 Electrical Circuits Lab Added 20 0.2 25 19BEE3LB02 Electrical Circuit Analysis Lab	26	R16EE2206	Analog Electronics	No change	0	0	23	19BEE3TH06	Analog Electronics
R16EE2IL1	27	R16EE21L2	Electronics Devices & Circuits Lab	Added	20	0.2	24	19BEE3LB01	Electronic Devices and Circuits Lab
R16EE2105 STATISTICAL METHODS Added 30 0.3 26 19BCC41H01 Complex Variables, Probability & Statistics	28	R16EE21L1	Electrical Circuits Lab	Added	20	0.2	25	19BEE3LB02	Electrical Circuit Analysis Lab
R16EE2205 Electrical Machines II No change 0 0 28 19BEE4TH04 Electrical Machines-II	29	R16EE2105		Added	30	0.3	26	19BCC4TH01	Complex Variables, Probability & Statistics
R16CC12L1 Enhancing Communication Skills Added 40 0.4 29 19BCC4LB01 English Communication Skills Lab - II R16EE2L1 Electrical Machines I Lab Added 20 0.2 30 19BEE4LB03 Electrical Machines Lab-I R16EE2L2 Analog & Digital Circuits Lab Added 20 0.2 31 19BEE4LB04 Analog & Digital Circuits Lab R16CC22MNC1 Quantitative Aptitude and Reasoning-I R16CC22MNC1 Control Systems No change 0 0 32 19BCC4MC02 Quantitative Aptitude and Reasoning R16EE2203 Control Systems No change 0 0 33 19BEE5TH01 Control Systems R16CC2101 BUSINESS MANAGEMENT CONCEPTS FOR ENGINEERS No change 0 0 34 19BEE7TH03 Business Management concepts For Engineers Aspects R16EE2204 Power Generation & Economic Aspects R16CC21MNC2 Verbal Ability Removed New 100 1 36 19BCC3MC02 Community Service New 100 1 37 19BEE4TH02 Problem Solving with Python New 100 1 38 19BEE4LB02 Python Lab	30	R16EE2202	Digital Electronics	No change	0	0	27	19BEE4TH03	Digital logic and circuits
Added 40 0.4 29 19BCC4LB01 Engish Communication Skills Lab - II 33 R16EE22L1 Electrical Machines I Lab Added 20 0.2 30 19BEE4LB03 Electrical Machines Lab-I 34 R16EE22L2 Analog & Digital Circuits Lab Added 20 0.2 31 19BEE4LB04 Analog & Digital Circuits Lab 35 R16CC22MNC1 Quantitative Aptitude and Reasoning-I 36 R16EE2203 Control Systems No change 0 0 32 19BCC4MC02 Quantitative Aptitude and Reasoning 37 R16CC2101 BUSINESS MANAGEMENT CONCEPTS FOR ENGINEERS No change 0 0 34 19BEE5TH01 Control Systems 38 R16EE2204 Power Generation & Economic Aspects 39 R16CC21MNC2 Verbal Ability Removed New 100 1 36 19BCC3MC02 Community Service New 100 1 38 19BEE4LB02 Python Lab New 100 1 38 19BEE4LB02 Python Lab	31	R16EE2205	Electrical Machines II	No change	0	0	28	19BEE4TH04	Electrical Machines-II
Added 20 0.2 30 19BEE4LB03 Electrical Machines Lab-1 R16EE22L2 Analog & Digital Circuits Lab Added 20 0.2 31 19BEE4LB04 Analog & Digital Circuits Lab R16CC22MNC1 Quantitative Aptitude and Reasoning-I No change 0 0 32 19BCC4MC02 Quantitative Aptitude and Reasoning R16EE2203 Control Systems No change 0 0 33 19BEE5TH01 Control Systems R16CC2101 BUSINESS MANAGEMENT CONCEPTS FOR ENGINEERS No change 0 0 34 19BEE7TH03 Business Management concepts For Engineers R16EE2204 Power Generation & Economic Added 40 0.4 35 19BEE2TH15 Power Generation and Economic Aspects R16CC21MNC2 Verbal Ability Removed New 100 1 36 19BCC3MC02 Community Service New 100 1 37 19BEE4TH02 Problem Solving with Python New 100 1 38 19BEE4TH02 Problem Solving with Python	32	R16CC12L1	Lab	Added	40	0.4	29	19BCC4LB01	English Communication Skills Lab - II
R16CC22MNC1 Reasoning-I No change 0 0 32 19BCC4MC02 Quantitative Aptitude and Reasoning R16EE2203 Control Systems No change 0 0 33 19BEE5TH01 Control Systems R16CC2101 BUSINESS MANAGEMENT CONCEPTS FOR ENGINEERS No change 0 0 34 19BEE7TH03 Business Management concepts For Engineers R16CC2101 Power Generation & Economic Aspects R16EE2204 Power Generation & Economic Aspects R16CC21MNC2 Verbal Ability Removed New 100 1 36 19BCC3MC02 Community Service New 100 1 37 19BEE4TH02 Problem Solving with Python New 100 1 38 19BEE4LB02 Python Lab	33	R16EE22L1	Electrical Machines I Lab	Added	20	0.2	30	19BEE4LB03	Electrical Machines Lab-I
Reasoning-I No change 0 0 32 19BCC4MC02 Quantitative Aptitude and Reasoning Reasoning-I No change 0 0 33 19BEE5TH01 Control Systems R16CC2101 BUSINESS MANAGEMENT CONCEPTS FOR ENGINEERS No change 0 0 34 19BEE7TH03 Business Management concepts For Engineers R16CC2101 Power Generation & Economic Added 40 0.4 35 19BEE2TH15 Power Generation and Economic Aspects R16CC21MNC2 Verbal Ability Removed New 100 1 36 19BCC3MC02 Community Service New 100 1 38 19BEE4TH02 Problem Solving with Python New 100 1 38 19BEE4LB02 Python Lab	34	R16EE22L2	Analog & Digital Circuits Lab	Added	20	0.2	31	19BEE4LB04	Analog & Digital Circuits Lab
37 R16CC2101 BUSINESS MANAGEMENT CONCEPTS FOR ENGINEERS No change 0 0 34 19BEE7TH03 Business Management concepts For Engineers 38 R16EE2204 Power Generation & Economic Aspects 39 R16CC21MNC2 Verbal Ability Removed New 100 1 36 19BCC3MC02 Community Service New 100 1 37 19BEE4TH02 Problem Solving with Python New 100 1 38 19BEE4LB02 Python Lab	35	R16CC22MNC1	1	No change	0	0	32	19BCC4MC02	Quantitative Aptitude and Reasoning
CONCEPTS FOR ENGINEERS No change 0 0 34 19BEE7TH03 Business Management concepts For Engineers R16EE2204 Power Generation & Economic Aspects Added 40 0.4 35 19BEE2TH15 Power Generation and Economic Aspects R16CC21MNC2 Verbal Ability Removed New 100 1 36 19BCC3MC02 Community Service New 100 1 37 19BEE4TH02 Problem Solving with Python New 100 1 38 19BEE4LB02 Python Lab	36	R16EE2203	Control Systems	No change	0	0	33	19BEE5TH01	Control Systems
38 R16EE2204 Aspects Added 40 0.4 35 19BEE2TH15 Power Generation and Economic Aspects 39 R16CC21MNC2 Verbal Ability Removed	37	R16CC2101		No change	0	0	34	19BEE7TH03	Business Management concepts For Engineers
New 100 1 36 19BCC3MC02 Community Service New 100 1 37 19BEE4TH02 Problem Solving with Python New 100 1 38 19BEE4LB02 Python Lab	38	R16EE2204		Added	40	0.4	35	19BEE2TH15	Power Generation and Economic Aspects
New 100 1 37 19BEE4TH02 Problem Solving with Python New 100 1 38 19BEE4LB02 Python Lab	39	R16CC21MNC2	Verbal Ability	Removed					
New 100 1 38 19BEE4LB02 Python Lab				New	100	1	36	19BCC3MC02	Community Service
				New	100	1	37	19BEE4TH02	Problem Solving with Python
New 100 1 39 19BEE4OE03 Micro Electron Mechanical System				New	100	1	38	19BEE4LB02	Python Lab
				New	100	1	39	19BEE4OE03	Micro Electron Mechanical System

Total weightage 6.35 Total weightage 6.3 Total Change in % Total Change in % (1) 37.35 (1)

Total no. of courses in R2019 22 Total no. of courses in R2020 17

C Na	R19		R19 Vs R20				R20	
S. No	Course Code	Course Name	Change Details	% of Change	weightage	S. No	Course Code	Course Name
1				100	1	1	R20CC1101	Technical and Communicative English -I
2				100	1	2	R20CC1102	Linear Algebra and Calculus
3				100	1	3	R20CC1208	Electronic Devices and Logic Design
4				100	1	4	R20CC1204	Engineering Chemistry
5				100	1	5	R20CC1105	Problem Solving Using C
6				100	1	6	R20CC1104	Applied Physics
7				100	1	7	R20CC1206	Problem Solving using Python
8				100	1	8	R20CC1202	Numerical Methods and Statistics
9				100	1	9	R20CCMC1	Environmental Studies
10				100	1	10	R20CC11L1	Soft Skills and Communication Skills Lab
11				100	1	11	R20CC12L1	Problem Solving using Python Lab
12				100	1	12	R20CC12L2	Engineering Chemistry Lab
13				100	1	13	R20CC11L2	Problem Solving Using C Lab
14				100	1	14	R20CC11L4	Applied Physics Lab
15				100	1	15	R20CC12L10	CSE Workshop
16				100	1	16	R20CC12L3	R Programming Lab
17				100	1	17	R20CS1108	LINUX Programming Lab
							,	
							•	
							,	
Total weighta	age	17				Total weight	2	
Total Change	e in % (1)	100				Total Change	e in % (1)	
of courses i	in R2020	17				Total no. of co	ourses in R2019	
Total Chang	ge= ((total w	eightage of R2019 Vs R2020+total wei	ghtage of R20:	19 Vs R2016	s)/(no. of co	urses in R20	20+no. of cou	urses in R2019))*100
		Total Change						
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