



ANURAG Engineering College


(An Autonomous Institution)

(Approved by AICTE, New Delhi, Affiliated to JNTUH, Hyderabad)

Ananthagiri (V & M), Kodad, Suryapet (Dt). Pin: 508 206.

LIST OF PROGRAMS IMPLEMENTED IN CBCS IN THE A.Y. 2019 – 20

S.No.	Level of the Program	Name of the Program	CBCS / Elective System
1	UG	B.Tech (Civil Engineering)	CBCS
2	UG	B.Tech. (Electrical and Electronics Engineering)	CBCS
3	UG	B.Tech. (Mechanical Engineering)	CBCS
4	UG	B.Tech. (Electronics and Communication Engineering)	CBCS
5	UG	B.Tech (Computer Science and Engineering)	CBCS
6	PG	Master of Business Administration	CBCS



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ANURAG ENGINEERING COLLEGE
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Ananthagiri(V&M), Suryapet Dt., T.S.



**PROFESSIONAL AND OPEN ELECTIVE COURSES OFFERED UNDER CBCS IN THE
ACADEMIC YEAR 2019 – 20**

B.TECH (CIVIL ENGINEERING)

S. No.	Type of the Elective under CBCS	Year	Sem-ester	Course Code	Course Name
1	Professional Elective-I (PE-I)	III	I	A55006	Elements of Earthquake Engineering
2	Professional Elective-I (PE-I)	III	I	A55007	Water shed Management
3	Professional Elective-I (PE-I)	III	I	A55008	Disaster Management
4	Professional Elective-II (PE-II)	III	II	A56005	Construction technology & Project management
5	Professional Elective-II (PE-II)	III	II	A56006	Environmental impact Assessment
6	Professional Elective-II (PE-II)	III	II	A56007	Advanced Structural Analysis
7	Professional Elective-III (PE-III)	IV	I	A57004	Railways and Airport Engineering
8	Professional Elective-III (PE-III)	IV	I	A57005	Earth Retaining Structures
9	Professional Elective-III (PE-III)	IV	I	A57006	Advanced Structural Design
10	Professional Elective-IV (PE-IV)	IV	I	A57007	Ground improvement techniques
11	Professional Elective-IV (PE-IV)	IV	I	A57008	Finite element methods
12	Professional Elective-IV (PE-IV)	IV	I	A57009	Building Services
13	Professional Elective-V (PE-V)	IV	II	A58001	Prestressed Concrete
14	Professional Elective-V (PE-V)	IV	II	A58002	Hazards and solid waste management
15	Professional Elective-V (PE-V)	IV	II	A58003	Urban planning and development
16	Professional Elective-VI (PE-VI)	IV	II	A58004	Rehabilitation and Retrofitting of structures
17	Professional Elective-VI (PE-VI)	IV	II	A58005	Design and drawing of irrigation structures
18	Professional Elective-VI (PE-VI)	IV	II	A58006	Geo Environmental Engineering
19	Open Elective-I (OE-I)	III	II	A56301	Construction Materials
20	Open Elective-I (OE-I)	III	II	A56302	Waste Management
21	Open Elective-I (OE-I)	III	II	A56303	Solar Photovoltaic Systems
22	Open Elective-I (OE-I)	III	II	A56304	Maintenance of Electrical Systems
23	Open Elective-I (OE-I)	III	II	A56305	Advanced Engineering Materials


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24	Open Elective-I (OE-I)	III	II	A56306	Mechatronics
25	Open Elective-I (OE-I)	III	II	A56307	Principles of Communication Systems
26	Open Elective-I (OE-I)	III	II	A56308	Electronic Measuring Instruments
27	Open Elective-I (OE-I)	III	II	A56309	Java Programming
28	Open Elective-I (OE-I)	III	II	A56310	Computer Networks
29	Open Elective-II (OE-II)	IV	I	A57301	Disaster Management and Mitigation
30	Open Elective-II (OE-II)	IV	I	A57003	Geological Information System & Remote Sensing
31	Open Elective-II (OE-II)	IV	I	A57302	Energy Storage Systems
32	Open Elective-II (OE-II)	IV	I	A57303	Electrical Engineering Materials
33	Open Elective-II (OE-II)	IV	I	A57022	Power Plant Engineering
34	Open Elective-II (OE-II)	IV	I	A57304	Industrial Robotics
35	Open Elective-II (OE-II)	IV	I	A57305	Computer Organization
36	Open Elective-II (OE-II)	IV	I	A57306	Principle of Signal Processing
37	Open Elective-II (OE-II)	IV	I	A57307	Database Management Systems
38	Open Elective-II (OE-II)	IV	I	A57308	Web Technologies
39	Open Elective-III (OE-III)	IV	II	A58301	Construction Technology and Project Management
40	Open Elective-III (OE-III)	IV	II	A58302	Safety Engineering
41	Open Elective-III (OE-III)	IV	II	A58303	Energy conservation and Audit
42	Open Elective-III (OE-III)	IV	II	A58304	Artificial Neural Networks
43	Open Elective-III (OE-III)	IV	II	A58305	Renewable Energy Sources
44	Open Elective-III (OE-III)	IV	II	A58306	Automobile Engineering
45	Open Elective-III (OE-III)	IV	II	A58307	Nanotechnology
46	Open Elective-III (OE-III)	IV	II	A58308	Biometric System
47	Open Elective-III (OE-III)	IV	II	A58309	Game Theory with Engineering Applications
48	Open Elective-III (OE-III)	IV	II	A58310	Software Engineering

B.TECH (ELECTRICAL AND ELECTRONICS ENGINEERING)

S. No.	Type of the Elective under CBCS	Year	Sem-ester	Course Code	Course Name
1	Professional Elective-I (PE-I)	III	I	A55014	Renewable Energy Sources
2	Professional Elective-I (PE-I)	III	I	A55015	Computer Organization
3	Professional Elective-I (PE-I)	III	I	A55016	Signals & Systems
4	Professional Elective-II (PE-II)	III	II	A56012	Special Electrical Machines
5	Professional Elective-II (PE-II)	III	II	A56013	Advanced Power Electronics
6	Professional Elective-II (PE-II)	III	II	A56014	Electrical Distribution Systems
7	Professional Elective-III (PE-III)	IV	I	A57013	Instrumentation
8	Professional Elective-III (PE-III)	IV	I	A57014	High Voltage Engineering
9	Professional Elective-III (PE-III)	IV	I	A57015	Optimization Techniques
10	Professional Elective-IV (PE-IV)	IV	I	A57016	Advanced Control Systems
11	Professional Elective-IV (PE-IV)	IV	I	A57017	Neural Networks and Fuzzy Logic
12	Professional Elective-IV (PE-IV)	IV	I	A57018	Linear system Analysis
13	Professional Elective-V (PE-V)	IV	II	A58007	HVDC Transmission & FACTS
14	Professional Elective-V (PE-V)	IV	II	A58008	Smart Grid
15	Professional Elective-V (PE-V)	IV	II	A58009	Power Quality
16	Professional Elective-VI (PE-VI)	IV	II	A58010	EHV AC Transmission
17	Professional Elective-VI (PE-VI)	IV	II	A58011	Power System Reliability
18	Professional Elective-VI (PE-VI)	IV	II	A58012	Digital Signal Processing
19	Open Elective-I (OE-I)	III	II	A56301	Construction Materials
20	Open Elective-I (OE-I)	III	II	A56302	Waste Management
21	Open Elective-I (OE-I)	III	II	A56303	Solar Photovoltaic Systems
22	Open Elective-I (OE-I)	III	II	A56304	Maintenance of Electrical Systems
23	Open Elective-I (OE-I)	III	II	A56305	Advanced Engineering Materials
24	Open Elective-I (OE-I)	III	II	A56306	Mechatronics
25	Open Elective-I (OE-I)	III	II	A56307	Principles of Communication Systems

26	Open Elective-I (OE-I)	III	II	A56308	Electronic Measuring Instruments
27	Open Elective-I (OE-I)	III	II	A56309	Java Programming
28	Open Elective-I (OE-I)	III	II	A56310	Computer Networks
29	Open Elective-II (OE-II)	IV	I	A57301	Disaster Management and Mitigation
30	Open Elective-II (OE-II)	IV	I	A57302	Geological Information System & Remote Sensing
31	Open Elective-II (OE-II)	IV	I	A57303	Energy Storage Systems
32	Open Elective-II (OE-II)	IV	I	A57304	Electrical Engineering Materials
33	Open Elective-II (OE-II)	IV	I	A57305	Power Plant Engineering
34	Open Elective-II (OE-II)	IV	I	A57306	Industrial Robotics
35	Open Elective-II (OE-II)	IV	I	A57307	Computer Organization
36	Open Elective-II (OE-II)	IV	I	A57308	Principles of Signal Processing
37	Open Elective-II (OE-II)	IV	I	A57309	Database Management Systems
38	Open Elective-II (OE-II)	IV	I	A57310	Web Technologies
39	Open Elective-III (OE-III)	IV	II	A58301	Construction Technology and Project Management
40	Open Elective-III (OE-III)	IV	II	A58302	Safety Engineering
41	Open Elective-III (OE-III)	IV	II	A58303	Energy conservation and Audit
42	Open Elective-III (OE-III)	IV	II	A58304	Artificial Neural Networks
43	Open Elective-III (OE-III)	IV	II	A58305	Renewable Energy Sources
44	Open Elective-III (OE-III)	IV	II	A58306	Automobile Engineering
45	Open Elective-III (OE-III)	IV	II	A58307	Nanotechnology
46	Open Elective-III (OE-III)	IV	II	A58308	Biometric System
47	Open Elective-III (OE-III)	IV	II	A58309	Game Theory with Engineering Applications
48	Open Elective-III (OE-III)	IV	II	A58310	Software Engineering

B.TECH (MECHANICAL ENGINEERING)

S. No.	Type of the Elective under CBCS	Year	Sem-ester	Course Code	Course Name
1	Professional Elective-I (PE-I)	III	I	A55022	Automobile Engineering
2	Professional Elective-I (PE-I)	III	I	A55023	Welding Technology
3	Professional Elective-I (PE-I)	III	I	A55024	Turbo Machinery
4	Professional Elective-II (PE-II)	III	II	A56019	Industrial Management
5	Professional Elective-II (PE-II)	III	II	A56020	Nano Technology
6	Professional Elective-II (PE-II)	III	II	A56021	Tribology
7	Professional Elective-III (PE-III)	IV	I	A57022	Power Plant Engineering
8	Professional Elective-III (PE-III)	IV	I	A57023	CNC Technologies
9	Professional Elective-III (PE-III)	IV	I	A57024	Unconventional Machining Process
10	Professional Elective-IV (PE-IV)	IV	I	A57025	Automation in Manufacturing Systems
11	Professional Elective-IV (PE-IV)	IV	I	A57026	Plant Layout &Material handling
12	Professional Elective-IV (PE-IV)	IV	I	A57027	Computational Fluid Dynamics
13	Professional Elective-V (PE-V)	IV	II	A58013	Industrial Robotics
14	Professional Elective-V (PE-V)	IV	II	A58014	Mechatronics
15	Professional Elective-V (PE-V)	IV	II	A58015	Composite Materials
16	Professional Elective-VI (PE-VI)	IV	II	A58016	Production Planning and Control
17	Professional Elective-VI (PE-VI)	IV	II	A58017	Mechanical vibrations
18	Professional Elective-VI (PE-VI)	IV	II	A58018	Flexible Manufacturing Systems
19	Open Elective-I (OE-I)	III	II	A56301	Construction Materials
20	Open Elective-I (OE-I)	III	II	A56302	Waste Management
21	Open Elective-I (OE-I)	III	II	A56303	Solar Photovoltaic Systems
22	Open Elective-I (OE-I)	III	II	A56304	Maintenance of Electrical Systems
23	Open Elective-I (OE-I)	III	II	A56305	Advanced Engineering Materials
24	Open Elective-I (OE-I)	III	II	A56306	Mechatronics
25	Open Elective-I (OE-I)	III	II	A56307	Principles of Communication Systems

26	Open Elective-I (OE-I)	III	II	A56308	Electronic Measuring Instruments
27	Open Elective-I (OE-I)	III	II	A56309	Java Programming
28	Open Elective-I (OE-I)	III	II	A56310	Computer Networks
29	Open Elective-II (OE-II)	IV	I	A57301	Disaster Management and Mitigation
30	Open Elective-II (OE-II)	IV	I	A57003	Geological Information System & Remote Sensing
31	Open Elective-II (OE-II)	IV	I	A57302	Energy Storage Systems
32	Open Elective-II (OE-II)	IV	I	A57303	Electrical Engineering Materials
33	Open Elective-II (OE-II)	IV	I	A57022	Power Plant Engineering
34	Open Elective-II (OE-II)	IV	I	A57304	Industrial Robotics
35	Open Elective-II (OE-II)	IV	I	A57305	Computer Organization
36	Open Elective-II (OE-II)	IV	I	A57306	Principles of Signal Processing
37	Open Elective-II (OE-II)	IV	I	A57307	Database Management Systems
38	Open Elective-II (OE-II)	IV	I	A57308	Web Technologies
39	Open Elective-III (OE-III)	IV	II	A58301	Construction Technology and Project Management
40	Open Elective-III (OE-III)	IV	II	A58302	Safety Engineering
41	Open Elective-III (OE-III)	IV	II	A58303	Energy conservation and Audit
42	Open Elective-III (OE-III)	IV	II	A58304	Artificial Neural Networks
43	Open Elective-III (OE-III)	IV	II	A58305	Renewable Energy Sources
44	Open Elective-III (OE-III)	IV	II	A58306	Automobile Engineering
45	Open Elective-III (OE-III)	IV	II	A58307	Nano Technology
46	Open Elective-III (OE-III)	IV	II	A58308	Biometric System
47	Open Elective-III (OE-III)	IV	II	A58309	Game Theory with Engineering Applications
48	Open Elective-III (OE-III)	IV	II	A58310	Software Engineering

B.TECH (ELECTRONICS AND COMMUNICATION ENGINEERING)

S. No.	Type of the Elective under CBCS	Year	Sem-ester	Course Code	Course Name
1	Professional Elective-I (PE-I)	III	I	A55029	Electronic Measurements & Instrumentation
2	Professional Elective-I (PE-I)	III	I	A55030	Artificial Neural Networks
3	Professional Elective-I (PE-I)	III	I	A55031	EMI/EMC
4	Professional Elective-II (PE-II)	III	II	A56026	Telecommunication switching Systems
5	Professional Elective-II (PE-II)	III	II	A56027	Satellite Communications
6	Professional Elective-II (PE-II)	III	II	A56020	Nanotechnology
7	Professional Elective-III (PE-III)	IV	I	A57031	Embedded Systems Design
8	Professional Elective-III (PE-III)	IV	I	A57032	Biometric System
9	Professional Elective-III (PE-III)	IV	I	A57028	Optical Communications
10	Professional Elective-IV (PE-IV)	IV	I	A57034	Digital Signal Processors & Architectures
11	Professional Elective-IV (PE-IV)	IV	I	A57035	Digital Image Processing
12	Professional Elective-IV (PE-IV)	IV	I	A57036	Television Engineering
13	Professional Elective-V (PE-V)	IV	II	A58019	Cellular & Mobile Communications
14	Professional Elective-V (PE-V)	IV	II	A58020	Radar Systems
15	Professional Elective-V (PE-V)	IV	II	A58021	Net work Security
16	Professional Elective-VI (PE-VI)	IV	II	A58022	Wireless Communications & Networks
17	Professional Elective-VI (PE-VI)	IV	II	A58023	Internet of Things
18	Professional Elective-VI (PE-VI)	IV	II	A58024	Scripting Languages
19	Open Elective-I (OE-I)	III	II	A56301	Construction Materials
20	Open Elective-I (OE-I)	III	II	A56302	Waste Management
21	Open Elective-I (OE-I)	III	II	A56303	Solar Photovoltaic Systems
22	Open Elective-I (OE-I)	III	II	A56304	Maintenance of Electrical Systems
23	Open Elective-I (OE-I)	III	II	A56305	Advanced Engineering Materials
24	Open Elective-I (OE-I)	III	II	A56306	Mechatronics
25	Open Elective-I (OE-I)	III	II	A56307	Principles of Communication Systems

26	Open Elective-I (OE-I)	III	II	A56308	Electronic Measuring Instruments
27	Open Elective-I (OE-I)	III	II	A56309	Java Programming
28	Open Elective-I (OE-I)	III	II	A56310	Computer Networks
29	Open Elective-II (OE-II)	IV	I	A57301	Disaster Management and Mitigation
30	Open Elective-II (OE-II)	IV	I	A57003	Geological Information System & Remote Sensing
31	Open Elective-II (OE-II)	IV	I	A57302	Energy Storage Systems
32	Open Elective-II (OE-II)	IV	I	A57303	Electrical Engineering Materials
33	Open Elective-II (OE-II)	IV	I	A57022	Power Plant Engineering
34	Open Elective-II (OE-II)	IV	I	A57304	Industrial Robotics
35	Open Elective-II (OE-II)	IV	I	A57305	Computer Organization
36	Open Elective-II (OE-II)	IV	I	A57306	Principles of Signal Processing
37	Open Elective-II (OE-II)	IV	I	A57307	Database Management Systems
38	Open Elective-II (OE-II)	IV	I	A57308	Web Technologies
39	Open Elective-III (OE-III)	IV	II	A58301	Construction Technology and Project Management
40	Open Elective-III (OE-III)	IV	II	A58302	Safety Engineering
41	Open Elective-III (OE-III)	IV	II	A58303	Energy conservation and Audit
42	Open Elective-III (OE-III)	IV	II	A58304	Artificial Neural Networks
43	Open Elective-III (OE-III)	IV	II	A58305	Renewable Energy Sources
44	Open Elective-III (OE-III)	IV	II	A58306	Automobile Engineering
45	Open Elective-III (OE-III)	IV	II	A58307	Nanotechnology
46	Open Elective-III (OE-III)	IV	II	A58308	Biometric System
47	Open Elective-III (OE-III)	IV	II	A58309	Game Theory with Engineering Applications
48	Open Elective-III (OE-III)	IV	II	A58310	Software Engineering

B.TECH (COMPUTER SCIENCE AND ENGINEERING)

S. No.	Type of the Elective under CBCS	Year	Sem-ester	Course Code	Course Name
1	Professional Elective-I (PE-I)	III	I	A55036	Human Computer Interaction
2	Professional Elective-I (PE-I)	III	I	A55037	Advanced Databases
3	Professional Elective-I (PE-I)	III	I	A55038	Mobile Computing
4	Professional Elective-II (PE-II)	III	II	A56032	Machine Learning
5	Professional Elective-II (PE-II)	III	II	A56033	Internet of Things
6	Professional Elective-II (PE-II)	III	II	A56034	Cyber Forensics
7	Professional Elective-III (PE-III)	IV	I	A57040	Software Project Management
8	Professional Elective-III (PE-III)	IV	I	A57041	Cloud Computing
9	Professional Elective-III (PE-III)	IV	I	A57042	Software Testing
10	Professional Elective-IV (PE-IV)	IV	I	A57043	Predictive Analytics with R Programming
11	Professional Elective-IV (PE-IV)	IV	I	A57044	Scripting Languages
12	Professional Elective-IV (PE-IV)	IV	I	A57045	Programming with Python
13	Professional Elective-V (PE-V)	IV	II	A58025	Big Data Analytics
14	Professional Elective-V (PE-V)	IV	II	A58026	Distributed Systems
15	Professional Elective-V (PE-V)	IV	II	A58027	Operations Research
16	Professional Elective-VI (PE-VI)	IV	II	A58028	Design Patterns
17	Professional Elective-VI (PE-VI)	IV	II	A58029	Artificial Intelligence
18	Professional Elective-VI (PE-VI)	IV	II	A58030	Multimedia Computing
19	Open Elective-I (OE-I)	III	II	A56301	Construction Materials
20	Open Elective-I (OE-I)	III	II	A56302	Waste Management
21	Open Elective-I (OE-I)	III	II	A56303	Solar Photovoltaic Systems
22	Open Elective-I (OE-I)	III	II	A56304	Maintenance of Electrical Systems
23	Open Elective-I (OE-I)	III	II	A56305	Advanced Engineering Materials
24	Open Elective-I (OE-I)	III	II	A56306	Mechatronics
25	Open Elective-I (OE-I)	III	II	A56307	Principles of Communication Systems

26	Open Elective-I (OE-I)	III	II	A56308	Electronic Measuring Instruments
27	Open Elective-I (OE-I)	III	II	A56309	Java Programming
28	Open Elective-I (OE-I)	III	II	A56310	Computer Networks
29	Open Elective-II (OE-II)	IV	I	A57301	Disaster Management and Mitigation
30	Open Elective-II (OE-II)	IV	I	A57003	Geological Information System & Remote Sensing
31	Open Elective-II (OE-II)	IV	I	A57302	Energy Storage Systems
32	Open Elective-II (OE-II)	IV	I	A57303	Electrical Engineering Materials
33	Open Elective-II (OE-II)	IV	I	A57022	Power Plant Engineering
34	Open Elective-II (OE-II)	IV	I	A57304	Industrial Robotics
35	Open Elective-II (OE-II)	IV	I	A57305	Computer Organization
36	Open Elective-II (OE-II)	IV	I	A57306	Principle of Signal Processing
37	Open Elective-II (OE-II)	IV	I	A57307	Database Management Systems
38	Open Elective-II (OE-II)	IV	I	A57308	Web Technologies
39	Open Elective-III (OE-III)	IV	II	A58301	Construction Technology and Project Management
40	Open Elective-III (OE-III)	IV	II	A58302	Safety Engineering
41	Open Elective-III (OE-III)	IV	II	A58303	Energy conservation and Audit
42	Open Elective-III (OE-III)	IV	II	A58304	Artificial Neural Networks
43	Open Elective-III (OE-III)	IV	II	A58305	Renewable Energy Sources
44	Open Elective-III (OE-III)	IV	II	A58306	Automobile Engineering
45	Open Elective-III (OE-III)	IV	II	A58307	Nanotechnology
46	Open Elective-III (OE-III)	IV	II	A58308	Biometric System
47	Open Elective-III (OE-III)	IV	II	A58309	Game Theory with Engineering Applications
48	Open Elective-III (OE-III)	IV	II	A58310	Software Engineering

MASTER OF BUSINESS ADMINISTRATION

S. No.	Type of the Elective under CBCS	Year	Sem-ester	Course Code	Course Name
1	Professional Elective-I (PE-I)	II	I	A93004/M	Consumer Behaviour
2	Professional Elective-I (PE-I)	II	I	A93004/F	Strategic Management Accounting
3	Professional Elective-I (PE-I)	II	I	A93004/H	Performance Management
4	Professional Elective-II (PE-II)	II	I	A93005/M	Sales and Distribution
5	Professional Elective-II (PE-II)	II	I	A93005/F	Security Analysis and Portfolio Management
6	Professional Elective-II (PE-II)	II	I	A93005/H	Training and Development
7	Professional Elective-III (PE-III)	II	I	A93006/M	Integrated Marketing Communications
8	Professional Elective-III (PE-III)	II	I	A93006/F	Financial Institutions, Markets and Service
9	Professional Elective-III (PE-III)	II	I	A93006/H	Management of Industrial Relations
10	Professional Elective-IV (PE-IV)	II	II	A94002/M	Retailing Management
11	Professional Elective-IV (PE-IV)	II	II	A94002/F	Strategic Investment and Financing Decisions
12	Professional Elective-IV (PE-IV)	II	II	A94002/H	Compensation and Reward Management
13	Professional Elective-V (PE-V)	II	II	A94003/M	Services Marketing
14	Professional Elective-V (PE-V)	II	II	A94003/F	International Financial Management
15	Professional Elective-V (PE-V)	II	II	A94003/H	International Human Resource Management
16	Professional Elective-VI (PE-VI)	II	II	A94004/M	International Marketing
17	Professional Elective-VI (PE-VI)	II	II	A94004/F	Financial Derivatives
18	Professional Elective-VI (PE-VI)	II	II	A94004/H	Leadership and Change Management
19	Open Elective-I (OE-I)	I	I	A91008	Cross Cultural Management
20	Open Elective-I (OE-I)	I	I	A91009	WTO & IPR
21	Open Elective-I (OE-I)	I	I	A91010	Total Quality Management
22	Open Elective-I (OE-I)	I	I	A91011	Project Management
23	Open Elective-II (OE-II)	I	II	A92007	Banking, Insurance & Risk Management
24	Open Elective-II (OE-II)	I	II	A92008	Foreign Trade
25	Open Elective-II (OE-II)	I	II	A92009	Logistics & Supply Chain Management
26	Open Elective-II (OE-II)	I	II	A92010	MSME Management