

Supplementary subject list (ASE&ASC-2024-25 Odd semester)

Sl.No.	Subject
1	15EEE304 Signals and Systems
2	15EEE314 Microcontroller and Applications
3	15EEE402 Electrical Energy Systems II
4	15ENV300 Environmental Science and Sustainability
5	15MAT303 Optimization Techniques
6	15MEC305 Thermal Engineering and Fluid Machinery
7	15SSK321 Soft Skills II
8	19AVP211 Amrita Values Program II
9	19BIO101 Biology for Engineers - A
10	19BIO111 Biology for Engineers - B
11	19CHY101 Engineering Chemistry - A
12	19CHY102 Engineering Chemistry - B
13	19CSE100 Problem Solving and Algorithmic Thinking
14	19CSE101 Computer Systems Essentials
15	19CSE102 Computer Programming
16	19CSE103 User Interface Design
17	19CSE111 Fundamentals of Data Structures
18	19CSE201 Advanced Programming
19	19CSE202 Database Management System
20	19CSE204 Object Oriented Paradigm
21	19CSE205 Program Reasoning
22	19CSE211 Computer Organization and Architecture
23	19CSE212 Data Structures and Algorithms
24	19CSE213 Operating Systems
25	19CSE214 Theory of Computation
26	19CSE282 Python Programming
27	19CSE301 Computer Networks
28	19CSE302 Design and Analysis of Algorithms
29	19CSE303 Embedded Systems
30	19CSE304 Foundations of Data Science
31	19CSE305 Machine Learning
32	19CSE311 Computer Security
33	19CSE312 Distributed Systems
34	19CSE313 Principles of Programming Languages
35	19CSE314 Software Engineering
36	19CSE331 Cryptography
37	19CSE332 Information Security
38	19CSE335 Ethical Hacking
39	19CSE337 Social Networking and Security
40	19CSE348 Machine Learning
41	19CSE350 Internet of Things
42	19CSE351 Computational Statistics and Inference Theory
43	19CSE353 Mining of Massive Datasets
44	19CSE356 Social Network Analytics
45	19CSE357 Big Data Analytics
46	19CSE358 Software Project Management
47	19CSE362 Information Systems
48	19CSE363 Artificial Intelligence
49	19CSE401 Compiler Design
50	19CSE431 Digital Image Processing
51	19CSE432 Pattern Recognition
52	19CSE437 Deep Learning for Computer Vision
53	19CSE445 Cloud Computing

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Sl.No.	Subject
54	19CSE453 Natural Language Processing
55	19CSE456 Neural Networks and Deep Learning
56	19CUL101 Cultural Education - I
57	19CUL111 Cultural Education - II
58	19EAC101 Introduction to Computer Engineering
59	19EAC111 Digital Circuits and Systems
60	19EAC112 Solid State Devices
61	19EAC201 Electronic Circuits I
62	19EAC202 Network Theory
63	19EAC203 Data Structures and Algorithms
64	19EAC204 Computer Organization and Architecture
65	19EAC205 Mathematics of Signal Processing
66	19EAC211 Operating Systems
67	19EAC212 Electronic Circuits II
68	19EAC213 Digital Signal Processing and Processors
69	19EAC214 Microprocessor and Microcontroller
70	19EAC301 Fundamentals of Machine Learning
71	19EAC302 Embedded Systems Design
72	19EAC303 Information Theory and Coding
73	19EAC311 Computer Networks
74	19EAC312 Data Base Management Systems
75	19EAC313 Data Science
76	19ECE101 Introduction to IoT
77	19ECE111 Circuit Theory
78	19ECE112 Electronic Devices and Circuits
79	19ECE201 Analog Electronic Circuits
80	19ECE202 Applied Electromagnetics
81	19ECE203 Signals and Systems
82	19ECE204 Digital Electronics and Systems
83	19ECE211 Digital Signal Processing
84	19ECE212 Linear Integrated Circuits
85	19ECE213 Transmission Lines and Radiating Systems
86	19ECE214 Communication Theory
87	19ECE301 Control Theory
88	19ECE302 Digital Communication
89	19ECE303 Radio Frequency Engineering
90	19ECE304 Microcontrollers and Interfacing
91	19ECE311 Computer Networks
92	19ECE312 Information Theory and Coding
93	19ECE313 VLSI Design
94	19ECE331 Biomedical Instrumentation
95	19ECE333 Micro Electro Mechanical Systems
96	19ECE337 VLSI Fabrication Technology
97	19ECE339 Optical Engineering
98	19ECE343 FPGA Based System Design
99	19ECE346 Digital IC Design
100	19ECE348 VLSI Testing and Testability
101	19ECE352 Operations Research
102	19ECE354 Deep Learning
103	19ECE362 Software Engineering
104	19ECE363 Machine Learning
105	19ECE434 MIMO and Multicarrier Systems
106	19ECE440 Telecommunication Management

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Sl.No.	Subject
107	19ECE442 Antenna Systems
108	19ECE443 Planar Microwave Devices
109	19ECE455 Biomedical Signal Processing
110	19EEE100 Basic Electrical and Electronics Engineering
111	19EEE111 Electrical and Electronics Engineering
112	19EEE112 Electric Circuits
113	19EEE114 Electronic Circuits
114	19EEE201 Electromagnetic Theory
115	19EEE202 Analog Integrated Circuits
116	19EEE203 Digital Systems
117	19EEE204 Electrical Measurements
118	19EEE205 Fundamentals of Mechanical Engineering
119	19EEE206 Material Science for Electrical Engineering
120	19EEE211 Control Systems
121	19EEE212 Electrical Energy Systems I
122	19EEE213 Electrical Machines I
123	19EEE214 Signals and Systems
124	19EEE301 Digital Signal Processing
125	19EEE302 Electrical Energy Systems II
126	19EEE303 Electrical Machines II
127	19EEE304 Power Electronics
128	19EEE312 Electric Drives and Control
129	19EEE313 Introduction to Python Programming
130	19EEE331 Smart Grid and IoT
131	19EEE341 Renewable Energy and Energy Conservation
132	19EEE352 Digital Control System
133	19EEE354 Introduction to Robotics
134	19EEE401 Power System Protection and Switch Gear
135	19EEE431 Electric Vehicles
136	19EEE434 Automotive Electronics
137	19EEE445 Illumination Engineering
138	19EEE447 Biomedical Systems
139	19ELC101 Electrical & Electronic Circuits
140	19ELC201 Sensors and Sensor Circuit Design
141	19ELC202 Object Oriented Programming
142	19ELC203 Computer Architecture
143	19ELC204 Electric Machines
144	19ELC205 Microelectronic Circuits
145	19ELC206 Operating Systems
146	19ELC211 Data Structures and Algorithms
147	19ELC212 Microcontrollers and Applications
148	19ELC301 Real Time Embedded Systems
149	19ELC302 Embedded Digital Signal Processing
150	19ELC303 Energy Systems
151	19ELC304 Machine Learning
152	19ELC311 Computer Networks and Industrial Communication
153	19ELC312 Data Base Systems and Programming
154	19ELC313 Power Electronics and Drives
155	19ENG111 Technical Communication
156	19ENG232 Insights into Life through English Literature
157	19ENG234 Indian Short Stories in English
158	19ENV300 Environmental Science
159	19GER232 Proficiency in German Language (Lower)

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Sl.No.	Subject
160	19HUM230 Emotional Intelligence
161	19HUM233 Glimpses of Indian Economy and Polity
162	19HUM242 The Message of Bhagwad Gita
163	19HUM243 The Message of the Upanishads
164	19HUM245 Service Learning
165	19LAW300 Indian Constitution
166	19MAT101 Single Variable Calculus
167	19MAT102 Matrix Algebra
168	19MAT104 Basic Linear Algebra
169	19MAT106 Ordinary Differential Equation
170	19MAT111 Multivariable Calculus
171	19MAT112 Linear Algebra
172	19MAT114 Differential Equation and Transforms
173	19MAT115 Discrete Mathematics
174	19MAT116 Laplace Transform
175	19MAT201 Numerical Methods
176	19MAT202 Optimization Techniques
177	19MAT205 Probability and Random Processes
178	19MAT209 Linear Algebra and Optimization Techniques
179	19MAT210 Probability and Complex Variables
180	19MAT213 Optimization Techniques
181	19MAT214 Fourier Transforms and Complex Analysis
182	19MAT216 Probability and Statistics
183	19MEE111 Engineering Mechanics
184	19MEE201 Thermodynamics
185	19MEE202 Manufacturing Process I
186	19MEE203 Mechanics of Solids
187	19MEE204 Metallurgy and Material Science
188	19MEE211 Computational Methods in Engineering
189	19MEE212 Fluid Mechanics and Machinery
190	19MEE213 Heat Power Engineering
191	19MEE214 Kinematics of Machines
192	19MEE215 Manufacturing Process II
193	19MEE301 Design of Machine Elements - I
194	19MEE302 Dynamics of Machines
195	19MEE303 Heat Transfer
196	19MEE304 Instrumentation and Control Systems
197	19MEE305 Machine Drawing
198	19MEE306 Operations Research
199	19MEE311 Design Thinking
200	19MEE312 Automation and IoT
201	19MEE313 Design of Machine Elements - II
202	19MEE314 Introduction to Finite Element Method
203	19MEE334 Modeling and Simulation of Engineering Systems
204	19MEE346 Managerial Statistics
205	19MEE347 Total Quality Management
206	19MEE353 HVAC Systems and Applications
207	19MEE354 Power Plant Engineering
208	19MEE355 Turbo Machinery
209	19MEE356 Automotive Technology
210	19MEE357 Solar and Wind Power Technologies
211	19MEE360 Electric Vehicle Design
212	19MEE402 Research Methodology

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Sl.No.	Subject
213	19MEE432 Composite Materials and Design
214	19MEE437 Advanced Casting Technology
215	19MEE439 Advanced Materials and Processes
216	19MEE490 Summer Internship
217	19MNG300 Disaster Management
218	19MNG331 Financial Management
219	19MNG338 Operations Research
220	19PHY101 Engineering Physics - A
221	19PHY102 Engineering Physics - B
222	19PHY103 Physics of Electronic Materials
223	19PHY345 Electronic Material Sciences
224	19SAN101 Sanskrit I
225	19SSK211 Soft Skills I
226	19SSK301 Soft Skills II
227	19SSK311 Soft Skills III
228	19SWK230 Corporate Social Responsibility
229	21AIE101 Elements of Computing Systems 1
230	21AIE102 Introduction to Digital Manufacturing
231	21AIE104 Introduction to Electrical Engineering
232	21AIE105 Object Oriented Programming
233	21AIE111 Data Structures & Algorithms 1
234	21AIE112 Elements of Computing Systems - 2
235	21AIE113 Introduction to Electronics
236	21AIE203 Data Structures & Algorithms 2
237	21AIE204 Introduction to Communication Systems
238	21AIE211 Introduction to Computer Networks
239	21AIE212 Design and Analysis of Algorithms
240	21AIE214 Bigdata Analytics
241	21AIE302 Advanced Computer Networks
242	21AIE303 Signal & Image Processing
243	21AIE311 Reinforcement Learning
244	21AIE313 Introduction to Modern Compiler Design
245	21AIE314 AI in Natural Language Processing
246	21AIE315 AI in Speech Processing
247	21ARE102 Computer Aided Drafting
248	21ARE112 Thermo-fluids
249	21ARE113 Manufacturing Process I
250	21ARE114 Biology for Robotics
251	21ARE203 Mechanics of Materials
252	21ARE211 Sensors and Signal Processing
253	21ARE213 Additive Manufacturing
254	21ARE214 Design of Machine Elements
255	21BIO103 Intelligence of Biological Systems 1
256	21BIO201 Intelligence of Biological Systems 3
257	21CHY105 Engineering Chemistry C
258	21CSE101 Programming in C
259	21CSE111 Programming in C++
260	21ECE431 Neuroengineering
261	21MAT104 Mathematics for Intelligent System 1
262	21MAT105 Multivariable Calculus
263	21MAT115 Linear Algebra
264	21MAT204 Mathematics for Intelligent Systems 3
265	21MAT205 Differential Equations and Numerical Methods

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Sl.No.	Subject
266	21MAT211 Probability and Statistics
267	21PHY104 Computational Engineering Mechanics 1
268	21PHY105 Engineering Physics C
269	21PHY113 Computational Engineering Mechanics 2
270	22ADM101 Foundations of Indian Heritage
271	22ADM111 Glimpses of Glorious India
272	22ADM211 Leadership from Ramayana
273	22AIE303 Database Management Systems
274	22ENV331 Environmental Engineering and Management
275	22MEE372 Automotive Materials and Engineering
276	23CHY109 Engineering Chemistry - B
277	23CHY116 Engineering Chemistry
278	23CSE115 Algorithmic Thinking and Computer Programming
279	23CSE116 C Programming
280	23CSE117 Object Oriented Programming
281	23EAC111 Computer Hardware and System Essentials
282	23EAC112 Digital Electronics
283	23ECE102 Problem Solving and Algorithmic Thinking
284	23ECE103 Fundamentals of Electrical Engineering
285	23ECE104 Physics of Semiconductors
286	23ECE105 Computer Programming
287	23ECE111 Electronic Devices and Circuits
288	23ECE112 Signal Processing I
289	23ECE114 Network Analysis
290	23EEE102 Basic Electrical and Electronics Engineering
291	23EEE105 Basic Electrical and Electronics Engineering
292	23EEE111 Electric Circuits
293	23EEE112 Electronic Circuits
294	23ELC101 Problem Solving and Algorithmic Thinking
295	23ELC111 Electrical Circuit Analysis
296	23ELC112 Electronic Devices & Circuits
297	23ELC113 Digital Electronics
298	23ELC114 Computer Programming
299	23ENG101 Technical Communication
300	23MAT121 Calculus and Linear Algebra
301	23MAT122 Calculus, Matrix Algebra and Ordinary Differential Equations
302	23MAT124 Engineering Mathematics I
303	23MAT125 Complex Analysis and Transforms
304	23MAT126 Mathematics for Intelligent Systems - 1
305	23MAT129 Differential Equations and Transforms
306	23MAT130 Engineering Mathematics II
307	23MAT131 Mathematics for Intelligent Systems - 2
308	23MEE101 Problem-Solving using C
309	23MEE111 Engineering Mechanics
310	23MEE112 Elements of Mechanical Engineering
311	23MEE116 Engineering Mechanics
312	23MEE451 Robot Kinematics and Dynamics
313	23MEE452 Microcontrollers and Embedded Systems
314	23PHY105 Engineering Physics - A
315	23PHY108 Engineering Physics
316	23PHY109 Engineering Physics
317	23RAI111 Fundamentals of Artificial Intelligence
318	24CSE331 Large Language Models

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319	19CSE102 Computer Programming
320	19CSE103 User Interface Design
321	19CSE111 Fundamentals of Data Structures
322	19CSE201 Advanced Programming
323	19CSE202 Database Management System
324	19CSE204 Object Oriented Paradigm
325	19CSE205 Program Reasoning
326	19CSE211 Computer Organization and Architecture
327	19CSE211 : Computer Organization and Architecture
328	19CSE212 Data Structures and Algorithms
329	19CSE212 : Data Structures and Algorithms
330	19CSE213 Operating Systems
331	19CSE213 : Operating Systems
332	19CSE214 Theory of Computation
333	19CSE214 : Theory of Computation
334	19ECE204 Digital Electronics and Systems
335	19EEE111 Electrical and Electronics Engineering
336	19ENG111 Technical Communication
337	19ENG230 : Business Communication
338	19ENG232 : Insights into Life through English Literature
339	19HUM231 : Glimpses into the Indian Mind - the Growth of Modern India
340	19MAT112 Linear Algebra
341	19MAT115 Discrete Mathematics
342	19MAT201 Numerical Methods
343	19MAT202 Optimization Techniques
344	19MAT205 Probability and Random Processes
345	19MAT205 : Probability and Random Processes
346	19MNG300 : Disaster Management
347	19PHY101 Engineering Physics - A
348	19SAN101 : Sanskrit I
349	19SSK211 : Soft Skills I
350	20CYS101 Classical Cryptography
351	20CYS111 Digital Signal Processing
352	20CYS112 Computer Organisation and Architecture
353	20CYS113 Computer Programming
354	20CYS114 Cyber Security Essentials
355	20MAT102 Linear Algebra
356	22ADM111 Glimpses of Glorious India
357	22ADM201 Strategic Lessons from Mahabharata
358	22ADM211 Leadership from Ramayana
359	22ADM211 : Leadership from Ramayana
360	22AIE101 Problem Solving & C Programming
361	22AIE102 Elements of Computing Systems 1
362	22AIE111 Object Oriented Programming in Java
363	22AIE112 Data Structures & Algorithms 1
364	22AIE113 Elements of Computing Systems - 2
365	22AIE114 Introduction to Electrical and Electronics Engineering
366	22AIE115 User Interface Design
367	22AIE202 Operating Systems
368	22AIE204 Introduction to Computer Networks
369	22AIE213 Machine Learning
370	22AVP103 Mastery Over Mind
371	22CSA504 Object-Oriented Programming Using Java

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Sl.No.	Subject
372	22CSA505 Data Structures
373	22CSA506 Advanced DBMS
374	22CSA513 Design and Analysis of Algorithms
375	22CSA514 Software Engineering and Design Patterns
376	22CSA534 Machine Learning
377	22CSA537 Natural Language Processing
378	22CSA558 Advanced Computer Networks
379	22CSA580 Problem Formulation and Research Tools
380	22CSA583 Python Programming
381	22CSA632 Advanced Operating Systems
382	22CSA652 Recommendation Systems
383	22CSA661 Essentials of Cyber security
384	22MAT110 Mathematics for Computing 1
385	22MAT122 Mathematics for Computing 2
386	22MAT220 Mathematics for Computing 3
387	22MAT533 Mathematical Foundations for Computer Applications
388	22PHY106 Computational Physics
389	23AID101 Computational Thinking
390	23AID112 Data Structures & Algorithms
391	23AID113 Elements of Computing 2
392	23CSE101 Computational Problem Solving
393	23CSE111 Object Oriented Programming
394	23CSE113 User Interface Design
395	23CUL234 The Essence of Vedanta
396	23CUL234 : The Essence of Vedanta
397	23ECE113 Introduction to Electronics
398	23EEE104 Introduction to Electrical and Electronics Engineering
399	23MAT107 Calculus
400	23MAT116 Discrete Mathematics
401	23MAT117 Linear Algebra
402	23PHY115 Modern Physics