

SAVITRIBAI PHULE PUNE UNIVERSITY

(Formerly University of Pune)



EXAMINATION CIRCULAR NO. 37 OF. 2022

THIRD YEAR ENGINEERING (2019 PATTERN)

Examination of SUMMER-2022

(Under Faculty of SCIENCE AND TECHNOLOGY: B)ENGINEERING)

INSTRUCTIONS FOR CANDIDATES

- Candidates are required to be present at the examination centre, THIRTY MINUTES before the stipulated time.
- Candidates are forbidden from taking any material into the examination hall that can be treated as a malpractice.
- Candidates are requested to see the Notice Board at their center of examination regularly for changes if any that may be notified later in the program.
- No request shall be granted for change in time or date for the University Examination on any ground.
- Candidates are requested to note the Day, Date and Time of Paper.
- Candidates are permitted to use stencils at the time of examination.
- The exchanges of side-rules, drawing instruments of other materials used in the examination hall is not permitted at the time of examination. Candidates must bring their own instruments and will not be allowed to borrow from each other under any circumstances.
- Use of non-programmable battery operated electronic pocket size Calculator is allowed. The exchange of Calculators is not allowed. Electronics Devices including mobile are not allowed at the time of examination.
- The written examination will be conducted in the following order.

AUTOMOBILE

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Automotive Refrigeration and Air Conditioning (316485)
Saturday 02/07/2022	Automotive Chassis and Transmission (316486)
Wednesday 06/07/2022	Design of Engine Components (316487)
Saturday 09/07/2022	ELECTIVE-II Automotive Aerodynamics and Body Engineering (316488-A)
	ELECTIVE-II Automotive Materials (316488-B)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Numerical & Optimization Methods (316481)
Thursday 14/07/2022	Heat Transfer (316482)
Monday 18/07/2022	Design of Machine Components (316483)
Thursday 21/07/2022	Automobile Electrical and Electronics (316484)
Monday 25/07/2022	ELECTIVE-I Advanced Forming & Joining Processes (302045-A)
	ELECTIVE-I Machining Science and Technology (302045-B)

CHEMICAL

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Chemical Reaction Engineering I (309348)
Saturday 02/07/2022	Mass Transfer II (309349)
Wednesday 06/07/2022	Transport Phenomena (309350)
Saturday 09/07/2022	ELECTIVE-II Energy Conservation in Chemical Process Industries (309351 A)
	ELECTIVE-II Process Instrumentation and Control (309351 B)
	ELECTIVE-II Corrosion Engineering (309351 C)
	ELECTIVE-II Artificial intelligence and Data Science (309351 D)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Mass Transfer-I (309341)
Thursday 14/07/2022	Chemical Technology -II (309342)
Monday 18/07/2022	Chemical Engineering Mathematics (309343)
Thursday 21/07/2022	Chemical Engineering Thermodynamics (309344)
Monday 25/07/2022	ELECTIVE-I Chemical Industry Management (409345A)
	ELECTIVE-I Food Technology (309345 B)
	ELECTIVE-I Polymer Engineering (309345 C)
	ELECTIVE-I Downstream Processing (309345 D)

CIVIL
SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Waste Water Engineering (301012)
Saturday 02/07/2022	Design of RC Structures (301013)
Wednesday 06/07/2022	Remote Sensing and GIS (301014)
Saturday 09/07/2022	ELECTIVE-II Advanced Engineering Geology with Rock Mechanics (301015 a)
	ELECTIVE-II Soft Computing Techniques (301015 b)
	ELECTIVE-II Advanced Surveying. (301015 c)
	ELECTIVE-II Advanced Geotechnical Engineering (301015 d)
	ELECTIVE-II Architecture and Town Planning (301015 e)
	ELECTIVE-II Solid Waste Management (301015 f)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Hydrology and Water Resources Engineering (301001)
Thursday 14/07/2022	Water Supply Engineering (301002)
Monday 18/07/2022	Design of Steel Structures (301003)
Thursday 21/07/2022	Engineering Economics and Financial Management (301004)
Monday 25/07/2022	ELECTIVE-I Advanced Fluid Mechanics and Hydraulic Machines (301005 a)
	ELECTIVE-I Research Methodology and IPR (301005 b)
	ELECTIVE-I Construction Management. (301005 c)
	ELECTIVE-I Advanced Concrete Technology (301005 d)
	ELECTIVE-I Matrix Methods of Structural Analysis (301005 e)
	ELECTIVE-I Advanced Mechanics of Structures (301005 f)

COMPUTER

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Data Science and Big Data Analytics (310251)
Saturday 02/07/2022	Web Technology (310252)
Wednesday 06/07/2022	Artificial Intelligence (310253)
Saturday 09/07/2022	ELECTIVE-II Information Security (310254 A)
	ELECTIVE-II Augmented and Virtual Reality (310254 B)
	ELECTIVE-II Cloud Computing (310254 C)
	ELECTIVE-II Software Modeling and Architectures (310254 D)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Database Management Systems (310241)
Thursday 14/07/2022	Theory of Computation (310242)
Monday 18/07/2022	Systems Programming and Operating System (310243)
Thursday 21/07/2022	Computer Networks and Security (310244)
Monday 25/07/2022	ELECTIVE-I Internet of Things and Embedded Systems (310245 A)
	ELECTIVE-I Human Computer Interface (310245 B)
	ELECTIVE-I Distributed Systems (310245 C)
	ELECTIVE-I Software Project Management (310245 D)

ELECTRICAL

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Power System-II (303148)
Saturday 02/07/2022	Computer Aided Design of Electrical Machines (303149)
Wednesday 06/07/2022	Control System Engineering (303150)
Saturday 09/07/2022	ELECTIVE-II IoT and its Applications in Electrical Engineering (303151 A)
	ELECTIVE-II Electrical Mobility (303151 B)
	ELECTIVE-II Cybernetic Engineering (303151 C)
	ELECTIVE-II Energy Management (303151 D)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Industrial and Technology Management (303141)
Thursday 14/07/2022	Power Electronics (303142)
Monday 18/07/2022	Electrical Machines-II (303143)
Thursday 21/07/2022	Electrical Installation Design and Condition Based Maintenance (303144)
Monday 25/07/2022	ELECTIVE-I Advanced Microcontroller and Embedded System (303145 A)
	ELECTIVE-I Digital Signal Processing (303145 B)
	ELECTIVE-I Open Elective (303145 C)

ELECTRONICS

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Fundamentals of HDL (304212)
Saturday 02/07/2022	Embedded Processors and Applications (304213)
Wednesday 06/07/2022	Industrial Management (304214)
Saturday 09/07/2022	ELECTIVE-II PLC & Automation (304215)
	ELECTIVE-II Advanced JAVA Programming (304195*)
	ELECTIVE-II Digital Signal Processing (304215)
	ELECTIVE-II Fiber Optic Communication (304215)
	ELECTIVE-II e Mobility (304215 E)

Note : *Common with E&TC

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Power and Industrial Electronics (304201)
Thursday 14/07/2022	Electromagnetic Waves and Propagation Theory (404202)
Monday 18/07/2022	Database Management (304183*)
Thursday 21/07/2022	Microcontrollers and Applications (304204)
Monday 25/07/2022	ELECTIVE-I Instrumentation systems (304205)
	ELECTIVE-I Machine Learning (304205)
	ELECTIVE-I Fundamentals of JAVA Programming (304185*)
	ELECTIVE-I Data Communication (304205)
	ELECTIVE-I Computer Networks (304205)
Note :- * Common with E&TC	

ELECTRONICS & TELECOMMUNICATION

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Cellular Networks (304192)
Saturday 02/07/2022	Project Management (304193)
Wednesday 06/07/2022	Power Devices & Circuits (304194)
Saturday 09/07/2022	ELECTIVE-II Digital Image Processing (304195)
	ELECTIVE-II Sensors in Automation (304195)
	ELECTIVE-II Advanced JAVA Programming (304195) *
	ELECTIVE-II Embedded Processors (304195)
	ELECTIVE-II Network Security (304195)
Note :- * Common with Electronics	

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Digital Communication (304181)
Thursday 14/07/2022	Electromagnetic Field Theory (304182)
Monday 18/07/2022	Database Management (304183) *
Thursday 21/07/2022	Microcontrollers (304184)
Monday 25/07/2022	ELECTIVE-I Digital Signal Processing (304185)
	ELECTIVE-I Electronic Measurements (304185) *
	ELECTIVE-I Fundamentals of JAVA Programming (304185)
	ELECTIVE-I Computer Networks (304185)
Note :- * Common with Electronics	

INFORMATION TECHNOLOGY

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Computer Networks & Security (314451)
Saturday 02/07/2022	Data Science and Big Data Analytics (314452)
Wednesday 06/07/2022	Web Application Development (414464A)
Saturday 09/07/2022	ELECTIVE-II Artificial Intelligence (314454 A)
	ELECTIVE-II Cyber Security (314454 B)
	ELECTIVE-II Cloud Computing (314454 C)
	ELECTIVE-II Software Modeling and Design (314454 D)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Theory of Computation (314441)
Thursday 14/07/2022	Operating Systems (314442)
Monday 18/07/2022	Machine Learning (314443)
Thursday 21/07/2022	Human Computer Interaction (314444)
Monday 25/07/2022	ELECTIVE-I Design and Analysis of Algorithm (314445 A)
	ELECTIVE-I Advanced Database and Management System (314445 B)
	ELECTIVE-I Design Thinking (314445 C)
	ELECTIVE-I Internet of Things (314445 D)

INSTRUMENTATION & CONTROL

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Internet of Things (306268)
Saturday 02/07/2022	Industrial Automation-II (306269)
Wednesday 06/07/2022	Digital Signal Processing (306270)
Saturday 09/07/2022	ELECTIVE-II Building Automation (306271 A)
	ELECTIVE-II Machine Learning (306271 B)
	ELECTIVE-II Electrical Drives (306271 C)
	ELECTIVE-II Analytical Instrumentation (306271 D)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Embedded Systems (306261)
Thursday 14/07/2022	Industrial Automation-I (306262)
Monday 18/07/2022	Modern Control Theory (306263)
Thursday 21/07/2022	Operating System (306264)
Monday 25/07/2022	ELECTIVE-I Mechatronics & Robotics (306265 A)
	ELECTIVE-I Data Science (306265 B)
	ELECTIVE-I Power Electronics (306265 C)
	ELECTIVE-I Bio-Medical Instrumentation (306265 D)

MECHANICAL

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Artificial Intelligence & Machine Learning (302049)
Saturday 02/07/2022	Computer Aided Engineering (302050)
Wednesday 06/07/2022	Design of Transmission Systems (302051)
Saturday 09/07/2022	ELECTIVE-II Composite Materials (302052-A)
	ELECTIVE-II Surface Engineering (302052-B)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	*Numerical & Statistical Methods (302041)
Thursday 14/07/2022	*Heat & Mass Transfer (302042)
Monday 18/07/2022	*Design of Machine Elements (302043)
Thursday 21/07/2022	* Mechatronics (302044)
Monday 25/07/2022	ELECTIVE-I Advanced Forming & Joining Processes (302045-A)
	ELECTIVE-I Machining Science & Technology (302045-B)

NOTE:- ** *Common to Mechanical Sandwich Engineering*

MECHANICAL-SANDWICH

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Process Planning & Tool Selection (Self-Study-I) (302066)
Saturday 02/07/2022	Advanced Materials & Manufacturing (Self-Study-II) (302067)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	* Numerical & Statistical Methods (302041)
Thursday 14/07/2022	* Heat & Mass Transfer (302042)
Monday 18/07/2022	* Design of Machine Elements (302043)
Thursday 21/07/2022	* Mechatronics (302044)
Monday 25/07/2022	Fundamentals of Computer Aided Engineering (302061)

NOTE:- ** **Common to Mechanical Engineering**

B. Tech. Biotechnology

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Fermentation Technology (315471)
Saturday 02/07/2022	Mass Transfer (315472)
Wednesday 06/07/2022	Bioseparation Engineering (315473)
Saturday 09/07/2022	ELECTIVE-II Instrumentation and Process Control (315474 A)
	ELECTIVE-II Food Biotechnology (315474 B)
	ELECTIVE-II Data base management systems (315474 C)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Analytical Techniques (315461)
Thursday 14/07/2022	Material Balances and Stoichiometry (315462)
Monday 18/07/2022	Genetic Engineering (315463)
Thursday 21/07/2022	Introduction to Immunology (315464)
Monday 25/07/2022	ELECTIVE-I Enzyme Technology (315465 A)
	ELECTIVE-I Good Laboratory Practices and Good Manufacturing Practices (315465 B)
	ELECTIVE-I Agricultural Biotechnology (315465 C)

Printing

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Flexo Printing Techniques (308289)
Saturday 02/07/2022	Color Management (308290)
Wednesday 06/07/2022	Design of Experiments (308291)
Saturday 09/07/2022	ELECTIVE-II Maintenance Management of Printing Machines (308293 A)
	ELECTIVE-II Basic Communication Systems and Electronic Instrumentation (308293 B)
	ELECTIVE-II E-Publishing (308293 C)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Print Statistics (308281)
Thursday 14/07/2022	Offset Printing Techniques (308282)
Monday 18/07/2022	Color Science and Measurement (308283)
Thursday 21/07/2022	Ink Technology (308284)
Monday 25/07/2022	ELECTIVE-I Cyber Security (308286 A)
	ELECTIVE-I Wood, Glass and Metal Based Packaging (308286 B)
	ELECTIVE-I Engineering Ethics (308286 C)

Production

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Production Tooling (311088 (A))
Saturday 02/07/2022	Production and Operations Management (311089) (A)
Wednesday 06/07/2022	Process Engineering and Resource Planning (311090) (A)
Saturday 09/07/2022	ELECTIVE-II Product Design and Development (311091 (A)-I)
	ELECTIVE-II Nano Manufacturing (311091 (A)-II)
	ELECTIVE-II Statistics and Numerical Methods (311091 (A)-III)
	ELECTIVE-II Financial Management and Costing (311091 (A)-IV)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Engineering Metrology and Instrumentation (311081 (A)
Thursday 14/07/2022	Material Forming Technology (311082 (A)
Monday 18/07/2022	Machining Science and Technology (311083 (A)
Thursday 21/07/2022	Kinematics and Design of Machines (311084 (A)
Monday 25/07/2022	ELECTIVE-I Finite Element Analysis (311085 (A)-I)
	ELECTIVE-I Advances in Manufacturing Processes (311085 (A)-II)
	ELECTIVE-I Mechatronics (311085 (A)-III)
	ELECTIVE-I Supply Chain Management (311085 (A)-IV)

Production Sandwich

SEM-II

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Wednesday 29/06/2022	Kinematics and Design of Machines (311084 (A))
Saturday 02/07/2022	Material forming and Mould Design (311124 (A))
Wednesday 06/07/2022	Metrology & Quality Control (311125 (A))
Saturday 09/07/2022	Statistics and Numerical Optimization methods (311088 (A))
Tuesday 12/07/2022	ELECTIVE-II Advanced Materials (311126 (A)-I)
	ELECTIVE-II Costing and Cost Control (311126 (A)-II)
	ELECTIVE-II Advanced Joining Technology (311126 (A)-III)
	ELECTIVE-II World Class Manufacturing (311126 (A)-IV)

SEM-I

Day & Date	2019 Course Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Monday 11/07/2022	Manufacturing Technology (Self Study) (311122 (A))

HONORS / MINORS

SEM-II

Day & Date	Honors / Minors	Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Friday 15/07/2022	Artificial Intelligence And Machine	Artificial Intelligence (310303)
	Cyber Security	Enterprise Architecture and Components (310403)
	Data Science	Statistics and Machine Learning (310503)
	Internet of Things	Internet of Things Architectures, Protocols and Systems Programming (310603)
	Virtual Reality And Augmented Reality	Augmented Reality (310703)
	Systems Engineering	Model Based Systems Engineering (302043MJ)
	Energy Management in Utility Systems	Energy Efficiency of Thermal Utilities (302023MJ)
	Electric Vehicles	e-Vehicle System Design (302033MJ)
	3D Printing	Design for Additive Manufacturing (302013MJ)
	Robotics	Robot Programming & Simulation (304183 HR)
	Block Chain Technology	Decentralize & Blockchain Technologies (304183 HBCT)
	Metro Construction	Planning and Quantity estimation for metro construction (301303)
	Architecture and Town Planning	Sustainable Architecture and Landscape Design (301403)

HONORS / MINORS

SEM-I

Day & Date	Honors / Minors	Time-09.00 AM To 11.30 AM (Additional 15 Minutes per hour)
Thursday 28/07/2022	Artificial Intelligence And Machine	Computational Statistics (310301)
	Cyber Security	Information and Cyber Security (310401)
	Data Science	Data Science and Visualization (310501)
	Internet of Things	Embedded Systems and Internet of Things (310601)
	Virtual Reality And Augmented Reality	Virtual Reality (310701)
	Systems Engineering	Foundations of systems & systems engineering (302041MJ)
	Energy Management in Utility Systems	Energy Management (302021MJ)
	Electric Vehicles	e-Vehicle Technology (302031MJ)
	3D Printing	Additive Manufacturing Technology (302011MJ)
	Robotics	Principles of Robotics (304181 HR)
	Block Chain Technology	Introduction to Block chain (304181 HBCT)
	Metro Construction	Surveying in Metro construction (301301)
	Architecture and Town Planning	Urban Housing and Infrastructure Planning (301401)

Ganeshkhind, Pune - 411 007

Ref.No/XCT/ 172

Date: 10 /06/2022

Director

Board of Examinations and Evaluation