SAVITRIBAI PHULE PUNE UNIVERSITY

(Formerly University of Pune)

EXAMINATION CIRCULAR NO. 20 OF. 2020

BACHELOR OF ENGINEERING (2012 & 2015 COURSE)

INSEM-II Examination of MARCH-2020

INSTRUCTIONS FOR CANDIDATES

- Candidates are required to be present at the examination centre, THIRTY MINUTES before the time fixed for paper.

- Candidates are forbidden from taking any material into the examination hall, that can be used for malpractice at the time of examination.

- Candidates are requested to see the Notice Board at their place of examination regularly for changes if any, that may be notified later in the program.

- No request for any special concession such as a change in time or any day fixed for the University Examination on any ground shall be granted.

- Candidates are requested to note the Day, Date and Time of every Paper on every day.

- Candidates are permitted to use stencils at the time of examination.

- Candidates appearing for the examinations are expected to provide themselves with Side- rules.

- The exchange or loan of side-rules, drawing instruments of other materials used in the examination hall is Not Permitted while the examinations are in process. 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 Calculator of Pocket-size is allowed. The exchange of Calculators is not allowed.

- The written examination will be conducted in the following order.

AUTOMOBILE

SEM-II

Day & Date	2015 Course TIME-02.00 PM To 03.00 PM Subject	2012 Course TIME-02.00 PM To 03.00 PM Subject
Monday 02/03/2020	Automotive System and Testing (416495)	Vehicle Performance And Testing. (416495)
Tuesday 03/03/2020	Automotive System Design (416496)	Automotive System Design (416496)
Wednesday 04/03/2020	**ELECTIVE - III** Automotive NVH (416497A)	**ELECTIVE - III** Automotive NVH (416497A)
	ELECTIVE - III Hybrid Electric and Fuel cell Vehicle (416497B)	**ELECTIVE - III** Off Road Vehicle (416497B)
	ELECTIVE - III Automotive Hydraulics and Pneumatics (416497C)	**ELECTIVE - III** Alternative Fuels And Emission Control (416497C)
Thursday 05/03/2020	**ELECTIVE - IV** Operation Research (416498A)	**ELECTIVE - IV** Transport Management And Motor Industries (416498A)
	ELECTIVE - IV Transport Management And Motor Industries (416498B)	**ELECTIVE - IV** Operation Research (416498B)
	ELECTIVE - IV Engineering Economics and Financial Management (416498C)	

CHEMICAL

SEM-II

Day & Date	2015 Course TIME-02.00 PM To 03.00 PM	2012 Course TIME-02.00 PM To 03.00 PM
	Subject	Subject
Monday 02/03/2020	Process Modelling & Simulation (409349)	Process Modelling & Simulation (409349)
Tuesday 03/03/2020	Process Engineering Costing & Plant Design (409350)	Process Engineering Costing & Plant Design (409350)
Wednesday 04/03/2020	**ELECTIVE-III** Energy Conservation In Chemical Process Industries (409351A)	**ELECTIVE-III** Energy Conservation In Chemical Process Industries (409351A)
	ELECTIVE-III Chemical Process Safety (409351B)	**ELECTIVE-III** Chemical Process Safety (409351B)
	ELECTIVE-III Food Technology (409351C)	**ELECTIVE-III** Food Technology (409351C)
	ELECTIVE-III Advanced Materials (409351D)	**ELECTIVE-III** Advanced Materials (409351D)
Thursday 05/03/2020	**ELECTIVE-IV** Catalysis (409352A)	**ELECTIVE-IV** Catalysis (409352A)
	ELECTIVE-IV Nanotechnology (409352B)	**ELECTIVE-IV** Nanotechnology (409352B)
	ELECTIVE-IV Fuel Cell Technology (409352C)	**ELECTIVE-IV** Fuel Cell Technology (409352C)
	ELECTIVE-IV Petrochemical Engineering (409352D)	**ELECTIVE-IV** Petrochemical Engineering (409352D)

CIVIL

SEM-II

Day & Date	2015 Course TIME-02.00 PM To 03.00 PM Subject	2012 Course TIME-02.00 PM To 03.00 PM Subject
Monday 02/03/2020	Dams And Hydraulic Structures (401007)	Dams And Hydraulic Structures (401007)
Tuesday 03/03/2020	Quantity Surveying contracts And Tenders (401008)	Quantity Surveying contracts And Tenders (401008)
Wednesday 04/03/2020	**ELECTIVE-III** Advanced Structural Design (401009A)	**ELECTIVE-III** Advanced Structural Design (401009A)
	ELECTIVE-III Statistical Analysis And Computational Methods In Civil Engineering (401009B)	**ELECTIVE-III** Advanced Foundation Engineering (401009B)
	ELECTIVE-III Hydropower Engineering (401009C)	**ELECTIVE-III** Hydropower Engineering (401009C)
	ELECTIVE-III Air Pollution And Control (401009D)	**ELECTIVE-III** Air Pollution And Control (401009D)
	ELECTIVE-III Finite Element Method In Civil Engineering (401009E)	**ELECTIVE-III** Finite Element Method In Civil Engineering (401009E)
	ELECTIVE-III Airport and Bridge Engineering (401009F)	
Thursday 05/03/2020	**ELECTIVE-IV** Construction Management (401010A)	**ELECTIVE-IV** Construction Management (401010A)
	ELECTIVE-IV Advanced Transportation Engineering (401010B)	**ELECTIVE-IV** Advanced Transportation Engineering (401010B)
	ELECTIVE-IV Advanced Foundation Engineering (401010C)	**ELECTIVE-IV** Statistical Analysis And Computational Methods In Civil Engineering(401010C)
	ELECTIVE-IV Coastal Engineering (401010D)	**OPEN ELECTIVE** Plumbing Engineering (401010DA)
	OPEN ELECTIVE Plumbing Engineering (401010EA)	**OPEN ELECTIVE** Green Building Technology (401010DB)
	OPEN ELECTIVE Green Building Technology (401010EB)	**OPEN ELECTIVE** Ferrocement Technology (401010DC)
	OPEN ELECTIVE Ferrocement Technology (401010EC)	**OPEN ELECTIVE** Sub Sea Engineering (401010DD)
	OPEN ELECTIVE Sub Sea Engineering (401010ED)	**OPEN ELECTIVE** Wave Mechanics (401010DE)
	OPEN ELECTIVE Geoinformatics (401010EE)	**OPEN ELECTIVE** Repairs and Retrofitting of Concrete Structure (401010DF)

COMPUTER

SEM-II

Day & Date	2015 Course TIME-02.00 PM To 03.00 PM **Subject**	2012 Course TIME-02.00 PM To 03.00 PM **Subject**
Monday 02/03/2020	Machine Learning (410250)	Software Design Methodology And Testing (410449)
Tuesday 03/03/2020	Information and Cyber Security (410251)	High Performance Computing (410450)
Wednesday 04/03/2020	**ELECTIVE-III** Advanced Digital Signal Processing (410252A)	**ELECTIVE-III** Mobile Computing (410451A)
	ELECTIVE-III Compilers (410252B)	**ELECTIVE-III** Web Technology (410451B)
	ELECTIVE-III Embedded and Real Time Operating Systems (410252C)	**ELECTIVE-III** Cloud Computing (410451C)
	ELECTIVE-III Soft Computing and Optimization Algorithms (410252D)	**ELECTIVE-III** Cyber Security (410451D)
Thursday 05/03/2020	**ELECTIVE-IV** Software Defined Networks (410253A)	**ELECTIVE-IV** Business Analytic And Intelligence (410452A)
	ELECTIVE-IV Human Computer Interface (410253B)	**ELECTIVE-IV** Operations Research For Algorithms In Scientific Applications (410452B)
	ELECTIVE-IV Cloud Computing (410253C)	**ELECTIVE-IV** Mobile Applications (410452C)
	OPEN ELECTIVE Business Intelligence (410253DA)	**OPEN ELECTIVE** *Unified Communications and Contact center Applications (410452DA)
	OPEN ELECTIVE Enterprise Resourse Planning (410253DB)	**OPEN ELECTIVE** Programming Paradigms for Complex Problems –case studies in Python (410452DB)
		OPEN ELECTIVE Concurrency on Open Source Systems (410452DC)
		OPEN ELECTIVE Fundamentals of Software Defined Network (410452DD)
		OPEN ELECTIVE Big Data and Data Analytics (410452DE)

Common with Information Technology

ELECTRICAL

SEM-II

Day & Date	2015 Course TIME-02.00 PM To 03.00 PM	2012 Course TIME-02.00 PM To 03.00 PM
	Subject	**Subject**
Monday 02/03/2020	Switchgear And Protection (403147)	Switchgear And Protection (403147)
Tuesday 03/03/2020	Power Electronic Controlled Drives (403148)	Power Electronic Controlled Drives (403148)
Wednesday 04/03/2020	**ELECTIVE-III** High Voltage Engineering (403149A)	**ELECTIVE-III** High Voltage Engineering (403149A)
	ELECTIVE-III HVDC And FACTS (403149B)	**ELECTIVE-III** HVDC And FACTS (403149B)
	ELECTIVE-III Digital Control System (403149C)	**ELECTIVE-III** Digital Control System (403149C)
	ELECTIVE-III Intelligent Systems And Its Applications In Electrical Engineering (403149D)	**ELECTIVE-III** Intelligent Systems And Its Applications In Electrical Engineering (403149D)
	ELECTIVE-III Analog Electronics and Sensing Technology (Open Elective) (403149E)	
Thursday 05/03/2020	**ELECTIVE-IV** Smart Grid (403150A)	**ELECTIVE-IV** Smart Grid (403150A)
	ELECTIVE-IV Robotics And Automation (403150B)	**ELECTIVE-IV** Robotics And Automation (403150B)
	ELECTIVE-IV Illumination Engineering (403150C)	**ELECTIVE-IV** Illumination Engineering (403150C)
	OPEN ELECTIVE VLSI Design (403150D)	**OPEN ELECTIVE** VLSI Design (403150D)

ELECTRONICS

SEM-II

Day & Date	2015 Course TIME-02.00 PM To 03.00 PM Subject	2012 Course TIME-02.00 PM To 03.00 PM Subject
Monday 02/03/2020	Computer Network & Security (404209)	Computer Network (404209)
Tuesday 03/03/2020	Process Instrumentation (404210)	Process Automation (404210)
Wednesday 04/03/2020	**ELECTIVE-III** Automotive Electronics (404211A)	**ELECTIVE-III** Speech & Audio Signal Processing (404211A)
	ELECTIVE-III Artificial Intelligence and Machine Learning (404211B)	**ELECTIVE-III** Audio And Video Engineering (404211B)
	ELECTIVE-III Optical And Microwave Communication (404211C)	**ELECTIVE-III** Optical And Microwave Communication (404211C)
	ELECTIVE-III Audio Video Engineering (404211D)	**ELECTIVE-III** Soft Computing (404211D)
	ELECTIVE-III Testing and Verification for SOC Design (404211E)	
Thursday 05/03/2020	**ELECTIVE-IV** Robotics (404212A)	**ELECTIVE-IV** Biomedical Signal Processing (404212A)
	ELECTIVE-IV Wireless Sensor Networks (404212B)	**ELECTIVE-IV** Nano Electronics & MEMS (404212B)
	ELECTIVE-IV Renewable Energy Systems & DSM (404212C)	**ELECTIVE-IV** System On Chip (404212C)
	ELECTIVE-IV TM4C123GH6PM Microcontroller (404212D)	**ELECTIVE-IV** Mechatronics (404212D)
		OPEN ELECTIVE * Advanced Automotive Electronics (404212EA)
		OPEN ELECTIVE * Data Science and Analytics (404212EB)
		OPEN ELECTIVE * Industrial Internet of Things (404212EC)

NOTE:-

Common with E & TC.

ELECTRONICS & TELECOMMUNICATION

SEM-II

Day & Date	2015 Course TIME-02.00 PM To 03.00 PM	2012 Course TIME-02.00 PM To 03.00 PM
	Subject	**Subject**
Monday 02/03/2020	Mobile Communication (404189)	Mobile Communication (404189)
Tuesday 03/03/2020	Broadband Communication Systems (404190)	Broadband Communication Systems (404190)
Wednesday 04/03/2020	**ELECTIVE-III** Machine Learning (404191A)	**ELECTIVE-III** Speech & Audio Signal Processing (404191A)
	ELECTIVE-III PLC and Automation (404191B)	**ELECTIVE-III** RF Circuit Design (404191B)
	ELECTIVE-III Audio and Speech Processing (404191C)	**ELECTIVE-III** Audio Video Engineering (404191C)
	ELECTIVE-III Software Defined Radio (404191D)	**ELECTIVE-III** Soft Computing (404191D)
	ELECTIVE-III Audio Video Engineering (404191E)	
Thursday 05/03/2020	**ELECTIVE-IV** Robotics (404192A)	**ELECTIVE-IV** Biomedical Signal Processing (404192A)
	ELECTIVE-IV Biomedical Electronics (404192B)	**ELECTIVE-IV** Nano Electronics & MEMS (404192B)
	ELECTIVE-IV Wireless Sensor Networks (404192C)	**ELECTIVE-IV** Detection & Estimation Theory (404192C)
	ELECTIVE-IV Renewable Energy Systems (404192D)	**ELECTIVE-IV** Wireless Networks (404192D)
		OPEN ELECTIVE Advanced Automotive Electronics (404192EA)
		OPEN ELECTIVE **Unified Communications and Contact center Applications (404192EB)
		OPEN ELECTIVE * Business Analytic And Intelligence (404192EC)
		OPEN ELECTIVE Data Science and Analytics (404192ED)
		OPEN ELECTIVE Industrial Internet of Things (404192EE)

*Common with Computer, ** Common with Information Technology*

INFORMATION TECHNOLOGY

SEM-II

Day & Date	2015 Course TIME-02.00 PM To 03.00 PM Subject	2012 Course TIME-02.00 PM To 03.00 PM Subject
Monday 02/03/2020	Distributed Computing System (414462)	Distributed System (414461)
Tuesday 03/03/2020	Ubiquitous Computing (414463)	Advanced Databases (414462)
Wednesday 04/03/2020	**ELECTIVE-III** Internet Of Things (414464A)	**ELECTIVE-III** Mobile Computing (414463A)
	ELECTIVE-III Information Storage And Retrieval (414464B)	**ELECTIVE-III** Advanced Graphics And Animation (414463B)
	ELECTIVE-III Multimedia Techniques (414464C)	**ELECTIVE-III** Information Storage And Retrieval (414463C)
	ELECTIVE-III Internet and Web Programming (414464D)	**ELECTIVE-III** IT Enabled Services (414463D)
	ELECTIVE-III Computational Optimization (414464E)	**ELECTIVE-III** Advanced Computer Networks (414463E)
Thursday 05/03/2020	**ELECTIVE-IV** Rural Technologies and Community Development (414465A)	**ELECTIVE-IV** Bio-Informatics (414464A)
	ELECTIVE-IV Parallel Computing (414465B)	**ELECTIVE-IV** Real Time And Embedded Systems (414464B)
	ELECTIVE-IV Computer Vision (414465C)	**ELECTIVE-IV** Green IT-Principles And Practices (414464C)
	ELECTIVE-IV Social Media Analytics (414465D)	**ELECTIVE-IV** Internet Of Things (414464D)
		OPEN ELECTIVE Unified Communications and Contact center Applications (414464E)

INSTRUMENTATION & CONTROL

SEM-II

Day & Date	2015 Course TIME-02.00 PM To 03.00 PM **Subject**	2012 Course TIME-02.00 PM To 03.00 PM **Subject**
Monday 02/03/2020	Process Instrumentation (406268)	Process Instrumentation- II (406267)
Tuesday 03/03/2020	Industrial Automation (406269)	Industrial Automation (406268)
Wednesday 04/03/2020	**ELECTIVE-III** Building Automation (406270A)	**ELECTIVE-III** Digital Image Processing (406269A)
	ELECTIVE-III Robotics and Automation (406270B)	**ELECTIVE-III** Building Automation- II (406269B)
	ELECTIVE-III Environmental Instrumentation (406270C)	**ELECTIVE-III** Process Modelling & Optimization (406269C)
	ELECTIVE-III Digital Image Processing (406270D)	**ELECTIVE-III** Virtual Instrumentation (406269D)
	ELECTIVE-III Process Modelling and Optimization (406270E)	**ELECTIVE-III** Computer Techniques And Applications (406269E)
Thursday 05/03/2020	**ELECTIVE-IV** Reliability Engineering (406271A)	**ELECTIVE-IV** Smart Material And Systems (406270A)
	ELECTIVE-IV Renewable Energy Systems (406271B)	**ELECTIVE-IV** Instrumentation In Agriculture And Food Processing (406270B)
	ELECTIVE-IV Instrumentation In Agriculture And Food Industries (406271C)	**ELECTIVE-IV** Neural Network And Fuzzy Logic Control (406270C)
	ELECTIVE-IV Smart Material And Systems (406271D)	**ELECTIVE-IV** Automobile Instrumentation (406270D)

MECHANICAL

SEM-II

Day & Date	2015 Course TIME-02.00 PM To 03.00 PM **Subject**	2012 Course TIME-02.00 PM To 03.00 PM **Subject**
Monday 02/03/2020	Energy Engineering (402047)	Power Plant Engineering (402047)
Tuesday 03/03/2020	*Mechanical System Design (402048) ***TIME-2.00 PM To 03.30 PM**	*Mechanical System Design (402048) ***TIME-2.00 PM To 03.30 PM**
Wednesday 04/03/2020	**ELECTIVE-III** Tribology (402049A)	**ELECTIVE-III** Refrigeration And Air Conditioning Equipment Design (402049A)
	ELECTIVE-III Industrial Engineering (402049B)	**ELECTIVE-III** Robotics (402049B)
	ELECTIVE-III Robotics (402049C)	**ELECTIVE-III** Industrial Engineering (402049C)
		ELECTIVE-III (OPEN ELECTIVE) Product Lifecycle Management (402049DA)
		ELECTIVE-III (OPEN ELECTIVE) Automobile Engineering (402049DB)
		ELECTIVE-III (OPEN ELECTIVE) Steam Engineering and Energy Conservations (402049DC)
Thursday 05/03/2020	**ELECTIVE-IV** Advanced Manufacturing Processes (402050A)	**ELECTIVE-IV** Computational Fluid Dynamics (402050A)
	ELECTIVE-IV Solar & Wind Energy (402050B)	**ELECTIVE-IV** Finite Element Analysis (402050B)
	ELECTIVE-IV Product Design and Development (402050C)	**ELECTIVE-IV** Design Of Pumps Blowers And Compressors (402050C)

NOTE:-

*Please note the timing

MECHANICAL-SANDWICH

SEM-II

Day & Date	2015 Course TIME-02.00 PM To 03.00 PM	2012 Course TIME-02.00 PM To 03.00 PM
	Subject	**Subject**
Monday 02/03/2020	**Energy Engineering (402047)	Mechanical Vibrations (402066)
Tuesday 03/03/2020	** Mechanical System Design (402048) *TIME-2.00 PM To 03.30 PM	** Mechanical System Design (402048) *TIME-2.00 PM To 03.30 PM
Wednesday 04/03/2020	Mechanical Vibrations (402066)	Industrial Hydraulics And Pneumatics (402067)
Thursday 05/03/2020	**ELECTIVE-I** Computational Fluid Dynamics (402068 A)	**ELECTIVE-I** Refrigeration And Air Conditioning (402068 A)
	ELECTIVE-I CAD/CAM Automation (402068B)	**ELECTIVE-I** Computational Fluid Dynamics (402068 B)
	ELECTIVE-I Finite Element Analysis (402068C)	**ELECTIVE-I** Design Of Pumps, Blowers & Compressors (402068 C)
	ELECTIVE-I Hydraulics And Pneumatics (402068 D)	**ELECTIVE-I** CAD/CAM Automation (402068D)
Friday 06/03/2020	**ELECTIVE-II** Energy Audit And Management (402069 A)	**ELECTIVE-II** Energy Audit And Management (402069 A)
	ELECTIVE-II Operations Research (402069 B)	**ELECTIVE-II** Operations Research (402069 B)
		ELECTIVE-II Robotics (402069 C)
		ELECTIVE-II Tribology (402069 D)

NOTE:-

Please Note The Timing.

*** Common with Mechanical Engineering.*

Ganeshkhind, Pune - 411 007

Ref.No/XCT/20
Date: 05/02/2020

Director
Board of Examinations & Evaluation