M.E. (2008, 2012 & 2013 - Pattern)
Examination, May, 2014

UNIVERSITY OF PUNE

EXAMINATION CIRCULAR No. 08 of 2014

Programme of the M.E. 2008, 2012 Pattern & 2013 Credit Pattern (Sem. I & II) (All Branches) Examination, May - 2014.

Instructions to the Candidates:

1. Candidates are required to be present at respective college fifteen minutes before the time fixed for the first paper and ten minutes before the time of each subsequent papers.
    (As per Circular No.128/2013 dated 10.10.2013) except following two collges.
    1. Anantrao Pawar College of Engineering, Parvati, Pune
    2. Sharadchandra Pawar College of Engineering, Dumbarwadi, Otur, Dist. Pune

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

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

4. 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 programme.

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

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

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

8. 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.

9. Use of non-programmable battery operated electronic Calculator of Pocket-size is allowed. The exchange of Calculators is not allowed.

10. **The paper setting, Conduct of Examination and paper assessment for End-semester examination for the subject Elective – I & Elective II (M.E. 2013 Credit Pattern) shall be done by the respective colleges as per the schedule of University**

11. The Written Examination will be conducted in the following order : (Attached)

M.E. (Civil) (Construction Management) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	*Mathematics (501101)	Applications of Statistical Methods in Construction (501021)
Monday 19/05/2014	*Management & Project Planning in Construction (501102)	Management and Project Planning in Construction (501022)
Wednesday 21/05/2014	*Construction Technology (501103)	Construction Technology (501023)
Friday 23/05/2014	***Elective-I (501104)** *a) New Construction Materials *b) Disaster Management *c) Repairs Rehabilitation, Retro. of Structures *d) Construction Safety	Research Methodology Treatment (501004)
Monday 26/05/2014	***Elective-II (501105)** *a) Resources Management *b) TQM in Construction *c) Value Engineering *d) Project Risk Analysis & Mitigation Techniques	Elective – I (501024)

M.E. (Civil) (Construction Management) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	*Construction Contracts Administration & Management (501108)	Construction Contracts Administration and Management (501026)
Tuesday 20/05/2014	*Project Economics & Financial Mgt. (501109)	Project Economics and Financial Management (501027)
Thursday 22/05/2014	*Operation Research (501110)	Operation Research (501028)
Saturday 24/05/2014	***Elective – III (501111)** *a) Advanced Construction Technology *b) Infrastructure Development *c) International Contracting	Elective – II (501029)
Tuesday 27/05/2014	***Elective IV (Open) (501112)** a) Trust areas in Project Management	----------

* Note - **Papers marked are of four hours duration (between 2-30 p.m. to 6-30 p.m.)**

M.E. (Civil) (Geotechnical Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Mathematics (501201)	Advance Soil Mechanics (501121)
Monday 19/05/2014	System Approach to Management & Development of Human Resources (501202)	Ground Improvement Techniques (501122)
Wednesday 21/05/2014	Engineering Behavior of soils (501203)	Rock Mechanics (501123)
Friday 23/05/2014	**Elective-I (501204)** a) Applied Soil Mechanics b) Site Investigations & Ground Improvement c) Rock Mechanics & Tunneling d) Shallow and Deep Foundation	Research Methodology (501004)
Monday 26/05/2014	**Elective-II (501205)** a) Soil Stabilization b) Soil Structure Interaction c) Geo-environmental Engineering d) Earth Pressure & Retaining Structures	Elective – I (501124)

M.E. (Civil) (Geotechnical Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Finite Element Methods in Geotechnical Engineering (501208)	Advance Foundation Engineering (501126)
Tuesday 20/05/2014	Reinforce Earth and Geo-synthetics (501209)	Construction Methods in Geotechnical (501127)
Thursday 22/05/2014	Foundation Design and Detailing (501210)	Stability of Slopes and Earth Dam (501128)
Saturday 24/05/2014	**Elective III (501211)** a) Slope Stability & Earth Dams b) Geotechnical Earthquake Engineering c) Foundation of Offshore Structures d) Geosynthetics	Elective – II (501129)
Tuesday 27/05/2014	**Elective IV (Open)** **(501212)**	----------

M.E. (Civil) (Hydraulics Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Computational Methods in Hydraulics (501301)	Fluid Mechanics (501041)
Monday 19/05/2014	Water Resource Planning & Management (501302)	Irrigation and Drainage (501042)
Wednesday 21/05/2014	Fluid Mechanics (501303)	Planning and Management of Water Resources (501043)
Friday 23/05/2014	**Elective-I (501304)** a) Remote Sensing & GIS in Water Resource Engineering b) Dam Engineering c) Systems Techniques in Water Resource Engineering	Research Methodology (501004)
Monday 26/05/2014	**Elective-II (501305)** a) Closed Conduit Flow b) Hydro Informatics & Simulation c) Hydropower	Elective – I (501044)

M.E. (Civil) (Hydraulics Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Open Channel Hydraulics (501308)	Open Channel Hydraulics (501046)
Tuesday 20/05/2014	Hydrology (501309)	Sediment Transport and River Mechanics (501047)
Thursday 22/05/2014	Sediment Transport & River Mechanics (501310)	Hydrology (501048)
Saturday 24/05/2014	**Elective III (501311)** a) Irrigation & Drainage b) Coastal Engineering c) Water Management & Conveyance System	Elective II (501049)
Tuesday 27/05/2014	**Elective IV (Open)** **(501312)**	----------

M.E. (Civil) (Structure) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	*Structural Mathematics (501401)	Advanced Mechanics of Solids (501401)
Monday 19/05/2014	*Advanced Soild Mechanics (501402)	Structural Dynamics (501402)
Wednesday 21/05/2014	*Structural Dynamics (501403)	Advanced Design of Steel Structures (501403)
Friday 23/05/2014	***Elective-I (501404)** *a) Advanced Design of concrete Structures *b) Structural Design of Concrete Bridges *c) Design of Composite Construction *d) Design of Foundations	Research Methodology Treatment (501004)
Monday 26/05/2014	**Elective-II (501405)** *a) Advanced Design of Metal Structures *b) Structural Design of Steel Bridges *c) Plastic Analysis & Design of Steel Structures *d) Design of Industrial Steel Structures	Elective – I (501405)

M.E. (Civil) (Structure) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	*Theory of Plates and Shells (501408)	Finite Element Analysis (501407)
Tuesday 20/05/2014	*Finite Element Method (501409)	Theory of Plates and Shells (501408)
Thursday 22/05/2014	*Management in Structural Engineering (501410)	Advanced Design of Concrete Structures (501409)
Saturday 24/05/2014	***Elective – III (501411)** *a) Earthquake Resistant Design of Structures *b) Structural Stability *c) Structural Reliability *d) Non-linear Analysis of Structures	Elective – II (501410)
Tuesday 27/05/2014	***Elective IV (Open) (501412)** a) *Biomaterials & Bio-Mechanics b) Mechanics of Modern Materials c) Theory of Plasticity d) Optimization Techniques	----------

* Note - Papers marked are of four hours duration (between 2-30 p.m. to 6-30 p.m.)

M.E. (Civil) (Environmental Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Numerical Methods and Applied Statistics (501501)	Environmental Legislation & Management Systems (501061)
Monday 19/05/2014	Air Pollution and Control (501502)	Environmental Chemistry & Micro-Biology (501062)
Wednesday 21/05/2014	Physico- Chemical Process for Water and Waste Water Treatment (501503)	Physico-Chemical Process for Water and Waste Water Treatment (501063)
Friday 23/05/2014	**Elective –I(501504)** a) Air and Water Quality Modeling b) Environmental Legislation and Management System c) Environmental Impact Assessment and Management	Research Methodology (501004)
Monday 26/05/2014	**Elective – II(501505)** a) Occupation Safety and Health b) Principles and Design of Biological Treatment System c) Environmental Risk Assessment and Management	Elective – I (501064)

M.E. (Civil) (Environmental Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Industrial Waste Water Management (501508)	Industrial Waste Water Management (501066)
Tuesday 20/05/2014	Environmental Chemistry and Microbiology (501509)	Air Pollution and Control (501067)
Thursday 22/05/2014	Solid Waste and Hazardous Waste Management (501510)	Solid Waste and Hazardous Waste Management (501068)
Saturday 24/05/2014	**Elective – III (501511)** a) Ground Water Contamination and Pollution Transport b) Agricultural Pollution Control and Environmental Biotechnology c) Environmental Sanitation	Elective – II (501069)
Tuesday 27/05/2014	**Elective-IV(501512)** Open Elective a) Ground Water Contamination and Pollution Transport b) Environmental Sanitation	----------

M.E. (Civil) (Water Resources & Environmental Engineering)

(2012 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2012 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday **16/05/2014**	Environmental Chemistry & Microbiology (501601)	Planning and Management of Water Resources (501081)
Monday **19/05/2014**	Environmental Management (501602)	Environmental Chemistry and Microbiology (501082)
Wednesday **21/05/2014**	Advance Fluid Mechanics (501603)	Fluid Mechanics (501083)
Friday **23/05/2014**	**Elective – I (501604)** a) Ground Water Contamination & Transport b) Hydrology & Groundwater c) Air Pollution Engineering d) Solid & Hazardous Waste Management	Research Methodology Treatment (501004)
Monday **26/05/2014**	**Elective-II (501605)** a) Unit Operation in Environmental Engineering b) Advance Water Treatment & Water Supply Engineering c) Remote Sensing & GIS System for Water Resources Management d) Planning and Management of Water Resources	Elective – I (501084)

M.E. (Civil) (Water Resources & Environmental Engineering)

(2012 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2012 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday **17/05/2014**	Optimization Technique (501608)	Environmental Hydraulics and Environmental Structures (501086)
Tuesday **20/05/2014**	Open Channel Hydraulics (501609)	Hydrology (501087)
Thursday **22/05/2014**	Advance Waste Water Treatment (501610)	Open Channel Hydraulics (501088)
Saturday **24/05/2014**	**Elective – III (501611)** 1. Computational Method in Water Resources 2. Noise Pollution and Control Technique 3. Ground Water Modeling 4. Industrial Waste Management	Elective II (501089)
Tuesday **27/05/2014**	**Elective – IV (501612)** 1. Dam Engineering 2. Energy and Environment 3. Closed Conduit Flow 4. Research Methodology and Intellectual Property Right	----------

M.E. (Mechanical) (Heat Power Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Numerical Methods in Thermal & Fluid Engineering (502101)	Advanced Mathematics and Numerical Methods (507101)
Monday 19/05/2014	Advanced Thermodynamics (502102)	Advanced Thermodynamics and Combustion Technology (502102)
Wednesday 21/05/2014	Technology & Financial Management (502103) (Common to Design & Mechatronics)	Advanced Fluid Mechanics (502103) (Common to Energy Engineering – 2013 Credit Pattern)
Friday 23/05/2014	**Elective-I (502104)** a) Performance Assessment of Mechanical Equipments b) Refrigeration Technology c) Energy Conservation & Management d) Convective Heat Transfer Analysis	Research Methodology (502104) (Common to All Mechanical Branches – 2013 Credit Pattern)
Monday 26/05/2014	**Elective-II (502105)** a) Inter nal Combustion Engines b) Advanced Air Conditioning & Heating & Ventilation c) Conventional Power Plants d) Advanced Gas Dynamics	Elective – I (502105)

M.E. (Mechanical) (Heat Power Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Advanced Heat Transfer (502108)	Advanced Heat Transfer (502107)
Tuesday 20/05/2014	Measurement Techniques and Data Analysis (502109)	Air Conditioning Technology (502108)
Thursday 22/05/2014	Advanced Fluid Mechanics (502110)	Measurements and Controls (502109)
Saturday 24/05/2014	**Elective – III (502111)** a) Internal Combustion Engines – fuels b) Cryogenic Engineering c) Non Conventional Power Plants	Elective – II (502110)
Tuesday 27/05/2014	**Elective – IV (502112)** a)Heat Exchanger System Design and Performance b)Computational Fluid Dynamics OPEN (SELF STUDY)** i)Computer Aided Engineering (Design)	----------

M.E. (Mechanical) (Design Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Mathematical Modeling & Analysis (502201)	Advanced Mathematics (507201)
Monday 19/05/2014	Advanced Stress Analysis (502202)	Material Science and Mechanical Behavior of Materials (502202)
Wednesday 21/05/2014	Technology & Financial Management (502203) (Common to Heat Power & Mechatronics)	Advanced Stress Analysis (502203)
Friday 23/05/2014	**Elective-I (502204)** a) Instrumentation & Automatic Control b) Advanced Material Science c) Optimization Techniques	Research Methodology (502204) (Common to All Mechanical Branches – 2013 Credit Pattern)
Monday 26/05/2014	**Elective-II (502205)** a) Material Handling Equipment Design b) Process Equipment Design c) Robotics	Elective – I (502205)

M.E. (Mechanical) (Design Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Vibration & Noise Control (502208)	Analysis and Synthesis of Mechanisms (502207)
Tuesday 20/05/2014	Advanced Machine Design (502209)	Advanced Mechanical Vibrations (502208)
Thursday 22/05/2014	Analysis & Synthesis of Mechanisms (502210)	Finite Element Method (502209)
Saturday 24/05/2014	**Elective – III (502211)** a) Reliability Engineering b) Engineering Fracture Mechanics c) Computer Aided Engineering	Elective – II (502210)
Tuesday 27/05/2014	**Elective – IV (502212)** a) Vehicle dynamics b) Industrial Tribology c) OPEN (SELF STUDY)**	----------

M.E. (Mechanical) (Mechatronics) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Applied Numerical Methods and Computational Techniques (502801)	System Modeling, Identification and Simulation (502801)
Monday 19/05/2014	Mechanical of Electronic Measurements (502802)	Control System – I (502802)
Wednesday 21/05/2014	Technology and Financial Management (502103) (Common to Heat Power & Design)	Sensors, Transducers and Interfacing Techniques (502803)
Friday 23/05/2014	**Elective - I((502804)** a) Design of Machine Elements b) Digital Signal Processing c) Advanced Material Science	Research Methodology (502804) (Common to All Mechanical Branches – 2013 Credit Pattern)
Monday 26/05/2014	**Elective – II(502805)** a) Control Systems b) Theory of Machines and Mechanisms c) Instrumentation & Automatic Control	Elective – I (502805)

M.E. (Mechanical) (Mechatronics) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Microcontrollers (502808)	PLC Programming (502807)
Tuesday 20/05/2014	Industrial Automation (502809)	Control Systems – II (502808)
Thursday 22/05/2014	Drives & Actuators (502810)	Industrial Drives and Actuators (502809)
Saturday 24/05/2014	**Elective – III (502811)** a) Computer Aided Design b) Robotics c) Automotive Electronics	Elective – II (502810)
Tuesday 27/05/2014	**Elective IV (502812)** a)Embedded Systems b)Fuzzy Logic and Neural Networks c) Open (Self Study)	----------

M.E. (Mechanical) (Automotive Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Mathematical Modeling & Analysis (502201)	Advanced Mathematics (507201)
Monday 19/05/2014	Automotive Engine Design (502301)	Automotive Engine Design (502302)
Wednesday 21/05/2014	Technology and Financial Management (502103)	Automotive Safety and Regulations (502303)
Friday 23/05/2014	**Elective – I (502302)** a) Advanced Heat Transfer b) Finite Element Method c) Advanced Hydraulics and Pneumatic Systems	Research Methodology (502304) (Common to All Mechanical Branches – 2013 Credit Pattern)
Monday 26/05/2014	**Elective – II (502303)** a) Tribology and Preventive Maintenance b) Automotive Safety and Regulations c) Automobile Air Conditioning	Elective – I (502305)

M.E. (Mechanical) (Automotive Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Automotive Fuels and Emissions (502306)	Engine Combustion Technology (502307)
Tuesday 20/05/2014	Autoerotic (502307)	Noise Vibration and Harshness (502308)
Thursday 22/05/2014	Fundamentals of Vehicle Dynamics (502308)	Automotive Chassis Design (502309)
Saturday 24/05/2014	**Elective – III (502309)** a) Noise Vibrations and Harshness b) Automotive Materials c) Vehicle Aerodynamics	Elective – II (502310)
Tuesday 27/05/2014	**Elective – IV (502310)** a)Computational Fluid Dynamics b) Automotive Chassis Design c)** Open Elective (Self Study)	----------

M.E. (Mechanical) (Energy Engineering) (2012 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2012 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Advanced Engineering Mathematics (502501)	Advanced Mathematics and Numerical Methods (507101)
Monday 19/05/2014	Advanced Thermodynamics (502502)	Advanced Thermodynamics (502502)
Wednesday 21/05/2014	Energy Conversion Systems (502503)	Advanced Fluid Mechanics (502103) (Common to Heat Power Engineering – 2013 Credit Pattern)
Friday 23/05/2014	**Elective – I (502504)** a) Nuclear Materials and Reactor Fundamentals b) Process Optimization c) Plant Operation, Dynamics and Control	Research Methodology (502504) (Common to All Mechanical Branches – 2013 Credit Pattern)
Monday 26/05/2014	**Elective – II (502505)** a) Electromechanical and Reactor Systems b) Process Integration c) Non Conventional Energy Sources	Elective – I (502505)

M.E. (Mechanical) (Energy Engineering) (2012 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2012 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Convective Heat Transfer (502508)	Advanced Heat Transfer (502107)
Tuesday 20/05/2014	Energy Systems Modeling and Analysis (502509)	Energy Conversion Systems (502508)
Thursday 22/05/2014	Energy Management (502510)	Energy Management (502509)
Saturday 24/05/2014	**Elective – III (502511)** a) Radiation Safety and Shielding b) Energy and Climate c) Energy Regulatory Frameworks	Elective – II (502510)
Tuesday 27/05/2014	**Elective – IV (502512)** a) Nuclear Measurement and Detection b) Energy Resources and Economics c) Processing Storage and Disposal of Nuclear Waste d) Open Elective	----------

M.E. (Mechanical) (Computer Aided Design Manufacture & Engineering)

(2012 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2012 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Advanced Machine Design (520401)	Advanced Mathematics (507201)
Monday 19/05/2014	Mathematical Modeling (502402)	Advanced Machine Design (502402)
Wednesday 21/05/2014	Computer Aided Design (520403)	Computer Aided Design (502403)
Friday 23/05/2014	**Elective – I (502404)** a) Material for Engineering Applications b) Advanced Manufacturing Processes c) Customization of CAD/CAM Software's d) CAD/CAM Practices in Metal Forming	Research Methodology (502404) (Common to All Mechanical Branches – 2013 Credit Pattern)
Monday 26/05/2014	**Elective – II (502405)** a) Finite Element Analysis b) Integrated Product Design & Development c) Computational Fluid Dynamics d) Robotics	Elective – I (502405)

M.E. (Mechanical) (Computer Aided Design Manufacture & Engineering)

(2012 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2012 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Management of Technology (502408)	Computer Integrated Manufacturing (502407)
Tuesday 20/05/2014	Computer Aided Manufacturing (502409)	Industrial Product Design & Product Life Cycle Management (502408)
Thursday 22/05/2014	Computer Integrated Manufacturing (502410)	Automated Manufacturing System Modeling (502409)
Saturday 24/05/2014	**Elective – III (502411)** a) Design for X b) Automated Manufacturing System Modeling c) Simulation and Modeling d) Optimization Techniques	Elective – II (502410)
Tuesday 27/05/2014	**Elective – IV (502412)** a) Product Lifecycle Management b) Rapid Prototyping c) Data Base Management System d) Robust Design of Product / Process e) Open Elective	----------

M.E. (Electrical) (Control System) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Advanced Mathematical Technique for Control System (503101)	Computational Technique for Control System (503101)
Monday 19/05/2014	Process Control Management (503102)	Process Control Management (503102)
Wednesday 21/05/2014	Nonlinear Control System (503103)	Non Linear Control System (503103)
Friday 23/05/2014	**Elective-I (503104)** a) Automation & Robotics b) Modeling & Dynamic System	Research Methodology (503104)
Monday 26/05/2014	**Elective-II (503105)** a) Advanced Topics in Control Systems b) Computer Aided Control Systems Design c) SCADA System & Applications	Elective – I (503105)

M.E. (Electrical) (Control System) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Multivariable & Optimal Control System (503108)	Multivariable and Optimal Control System (503107)
Tuesday 20/05/2014	System Identification & Adaptive Control (503109)	System Identification and Adaptive Control (503108)
Thursday 22/05/2014	Advanced Digital Control Technique (503110)	Advanced Digital Control Techniques (503109)
Saturday 24/05/2014	**Elective – III (503111)** a) Robust Control Systems b) Stochhastics Dynamical Systems c) Large Scale System	Elective – II (503110)
Tuesday 27/05/2014	**Elective – IV (503112)** a) Intelligent Control b) Advanced Drives & Control c) Open	----------

M.E. (Electrical) (Power System) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Computer Applications in power Systems (503201)	Computer Applications in Power Systems (503201)
Monday 19/05/2014	Power Sector Economics, Management & Restructuring (503202)	Power Sector Economics and Management (503202)
Wednesday 21/05/2014	Power System Modeling (503203)	Power System Modeling (503203)
Friday 23/05/2014	**Elective-I (503204)** a) Digital Signal Processing & its Applications b) Advanced Power Electronics	Research Methodology (503204)
Monday 26/05/2014	**Elective-II (503205)** a) Artificial Intelligence & its Application in Power System b) Renewable Energy Sources	Elective – I (503205)

M.E. (Electrical) (Power System) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Power System Dynamics (503208)	Power System Dynamics (503207)
Tuesday 20/05/2014	Power System Planning & Reliability (503209)	Power System Planning & Reliability (503208)
Thursday 22/05/2014	High Voltage Power Transmission (503210)	HVDC and Flexible AC Transmission (503209)
Saturday 24/05/2014	**Elective – III (503211)** a) Digital Power System Protection b) Power Electronics Applications in Power Systems	Elective – II (503210)
Tuesday 27/05/2014	**Elective – IV (503212)** a) Power Quality Assessment and Mitigation b) Partial Discharges in Electrical Power Apparatus c) Open	----------

M.E. (Electrical) (Power Electronics & Drives)(2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Modeling and Analysis of Electrical Machines (503301)	Modeling and Analysis of Electrical Machines (503301)
Monday 19/05/2014	Energy Management and Power Quality in Electrical Drives (503302)	Energy Management and Power Quality in Electrical Drives (503302)
Wednesday 21/05/2014	Power Electronic Devices and Circuits (503303)	Power Converters (503303)
Friday 23/05/2014	**Elective – I (503304)** a) DSP and its Applications in Electrical Drives b) Data Acquisition and Signal Conditioning c) Digital Simulation of Power Electronic Systems	Research Methodology (503304)
Monday 26/05/2014	**Elective – II (503305)** a) FACTS and HVDC b) Harmonics and their Mitigation	Elective – I (503305)

M.E. (Electrical) (Power Electronics & Drives)(2008 Pattern & 2013 Credit Pattern)(Sem.II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Controlled Electrical Drives (503308)	AC and DC Drives (503307)
Tuesday 20/05/2014	Power Electronic Applications (503309)	Design of Power Electronic Systems (503308)
Thursday 22/05/2014	Design of Power Electronic Systems (503310)	Advanced Control Systems (503309)
Saturday 24/05/2014	**Elective – III (503311)** a) Automation in Industrial Drives b) Computer Aided Design of Electrical Machines c) Microcontroller Applications	Elective – II (503310)
Tuesday 27/05/2014	**Elective – IV (503312)** a) Artificial Intelligence in Electrical Drives b) Special Topics in Power Electronics and Drives c) Open Elective	----------

M.E. (E & TC) (Microwave) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Electromagnetics & Antenna Theory (504222)	Electromagnetics and Antenna Theory (504301)
Monday 19/05/2014	Principles & Practices for IT Management (504182) (Common to VSLI, Electronics)	RF and Microwave Circuits (504302)
Wednesday 21/05/2014	RF Wave & Microwave Circuit Design (504223)	Microwave Measurements (504303)
Friday 23/05/2014	**Elective-I (504224)** a) Applications of Microwaves to Radar & Satellite b) Digital Image processing & Analysis c) Communication Networks	Research Methodology (504104) (Common to All E & TC Branches and Electronics Branch – 2013 Credit Pattern)
Monday 26/05/2014	**Elective-II (504225)** a) Smart Antennas b) Speech Processing & Application c) Semiconductor Device Modeling & Technology	Elective – I (504305)

M.E. (E & TC) (Microwave) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Microwave Integrated Circuits (504228)	Computational Electromagnetic (504307)
Tuesday 20/05/2014	Signal Processing for Wireless Communication (504229)	RF and MMIC Technology (504308)
Thursday 22/05/2014	Mobile Communication – GSM and CDMA (504230)	Wireless Communication System (504309)
Saturday 24/05/2014	**Elective – III (504231)** a)Fiber Optic Communication b)System Design c)EMI and EMC Techniques	Elective – II (504310)
Tuesday 27/05/2014	**Elective – IV (Open) (504232)** Any one subject of Elective IV from the following Branches a)Electronics Engineering b)Computer Engineering c)Information Technology Open Elective i))Software Project Management ii) Digital Signal Compression	----------

M.E. (E & TC) (VLSI & Embedded Systems) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Analog & Digital CMOS IC Design (504181)	Digital CMOS Design (504201)
Monday 19/05/2014	Principles & Practices for IT Management (504182)	Embedded System Design (504103)
Wednesday 21/05/2014	Embedded System Design (504183)	Reconfigurable Computing (504203)
Friday 23/05/2014	**Elective-I (504184)** a) ASIC Design & Modeling b) Nanotechnology c) Machine Intelligence	Research Methodology (504104) (Common to All E & TC Branches and Electronics Branch – 2013 Credit Pattern)
Monday 26/05/2014	**Elective-II (504185)** a) Reconfigurable Computing b) Memory Technologies c) VLSI EDA Tools	Elective – I (504205)

M.E. (E & TC) (VLSI & Embedded Systems) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Real Time Operating Systems (504188)	Analog CMOS Design (504207)
Tuesday 20/05/2014	Embedded Signal Processing (504189)	System on Chip (504208)
Thursday 22/05/2014	RF IC Design (504190)	Embedded Signal Processors (504209)
Saturday 24/05/2014	**Elective – III (504191)** a)Fault Tolerant System Design b)Biomedical Signals and Systems c)Advanced Digital System Design	Elective – II (504210)
Tuesday 27/05/2014	**Elective IV – (Open) (504192)** a) Embedded Automotive Systems b) System on Chip (SOC) c) Software Defined Radio d) High Performance Computer Network (Comm. to I.T.)	----------

M.E. (E & TC) (Signal Processing) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Liner Algebra & Random Processes (504501)	Image Processing and Analysis (504401)
Monday 19/05/2014	Principles & Practices for I.T. Management (504182) (Common to E.& TC, V.L.S.I. & Electronic)	Signal Processing Techniques (504402)
Wednesday 21/05/2014	Signal Processing Techniques (504502)	Mixed Signal Processing Systems and Design (504403)
Friday 23/05/2014	**Elective-I (504503)** a) Digital Image Processing b) Automotive Electronics c) Artificial Intelligence	Research Methodology (504104) (Common to All E & TC Branches and Electronics Branch – 2013 Credit Pattern)
Monday 26/05/2014	**Elective-II (504504)** a) Bio-Medical Signal Processing b) Wireless & Mobile Communication c) Smart Antennas	Elective – I (504405)

M.E. (E & TC) (Signal Processing) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Statistical Signal Processing (504507)	Speech Signal Processing (504407)
Tuesday 20/05/2014	Advanced Digital Signal Processing (504508)	Architecture for Signal Processing Algorithms (504408)
Thursday 22/05/2014	VLSI in Signal Processing (504509)	Biomedical Signal Processing (504409)
Saturday 24/05/2014	**Elective – III: (504510)** a) Acoustic & Speech Processing b) Digital Signal Compression c) Multimedia Techniques	Elective – II (504410)
Tuesday 27/05/2014	**Elective – IV (504511)** a) Radar & Satellite Signal Processing b) Operating Systems & Open Source Systems c) Computer Vision	----------

M.E. (E & TC) (Communication Networks) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Coding & Modulation Techniques (504601)	Modeling and Simulation of Communication Networks (504501)
Monday 19/05/2014	Principles & Practices of IT Management (504182)	Spread spectrum and CDMA Systems (504502)
Wednesday 21/05/2014	Modeling & Simulation of Communication Network (504602)	Detection and Estimation Theory (504503)
Friday 23/05/2014	**Elective – I (504603)** a)Microwave and Antenna Theory b)Signal Detection and Estimation c) Ad-hoc Networks	Research Methodology (504104) (Common to All E & TC Branches and Electronics Branch – 2013 Credit Pattern)
Monday 26/05/2014	**Elective – II (504604)** a) RF MRMs b)Network Architecture & Design c)Computational Electromagnetics	Elective – I (504505)

M.E. (E & TC) (Communication Networks) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Wired and Wireless Networks (504607)	Traffic Analysis and QOS (504507)
Tuesday 20/05/2014	Network Traffic Analysis and Qos (504608)	Broadband Wireless Technologies (504508)
Thursday 22/05/2014	Wireless System Design (504609)	Optical Networks (504509)
Saturday 24/05/2014	**Elective – III ((504610)** a)Wireless Sensor Networks b)Mobile Computing c)Network Security	Elective – II (504510)
Tuesday 27/05/2014	**Elective – IV (504611)** a)Software Radio b)Neural Networks in Communication c)Hardware Platforms for Networking Applications	----------

M.E. (Electronics) (Digital System) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Microelectronics (504195)	Microelectronics (504101)
Monday 19/05/2014	Principles & Practices for IT Management (504182)	Digital Signal Processing Architectures (504102)
Wednesday 21/05/2014	Signal Processing Architectures (504196)	Embedded System Design (504103)
Friday 23/05/2014	**Elective-I (504197)** a) Fault Tolerant System Design b) Advanced Digital System Design c) Wireless & Mobile Technologies	Research Methodology (504104) (Common to All E & TC Branches and Electronics Branch – 2013 Credit Pattern)
Monday 26/05/2014	**Elective-II (504198)** a) Machine Intelligence b) Advanced Computing Architectures c) Memory Technologies	Elective – I (504105)

M.E. (Electronics) (Digital System) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Embedded Systems (504201)	Design for Testability (504107)
Tuesday 20/05/2014	Communication Network and Security (504202)	PLDs and ASIC Design (504108)
Thursday 22/05/2014	Image Processing and Pattern Recognition (504203)	Random Signals and Processes (504109)
Saturday 24/05/2014	**Elective – III (504204)** a) Digital Systems using PLDs b) Biomedical Signals and Systems c) Embedded Video processing	Elective – II (504110)
Tuesday 27/05/2014	**Elective – IV (OPEN) (504205)** a) Reconfigurable Computing b) Embedded Automotive Systems c) Digital Signal Compression	----------

M.E. (Production) (Production & Production CAD/CAM) (2008 Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	Production - 2008 Pattern (Sem. I)	Production CAD/CAM – 2008 Pattern (Sem. I)
Friday 16/05/2014	Mathematics and Statistics (511101)	Computer Aided Design (511201)
Monday 19/05/2014	CAD/CAM/CIM (511102)	Computer Aided Manufacturing (511202)
Wednesday 21/05/2014	Advanced Manufacturing Processes (511103)	Optimization Techniques (511203)
Friday 23/05/2014	**Elective-I (511104)** a) Advanced Mechatronics b) Reliability & Failure Analysis c) Supply Chain Management d) Advanced Machine Tool Design	**Elective I (511204)** a)Advanced Stress Analysis b)Tribology & Surface Engineering c)Industrial Robotics & Artificial Intelligence d)Concurrent Product Design
Monday 26/05/2014	**Elective-II (511105)** a) Advance Robotics b) Sheet Metal Processing c) Tool and Die Design d) Engineering Economics & Accounting	**Elective – II (511205)** a) Mechatronics b) Rapid Prototyping c) Energy Management d) CAD/CAM/CAE Software Development

M.E. (Production) (Production & Production CAD/CAM) (2008 Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	Production - 2008 Pattern (Sem. II)	Production CAD/CAM – 2008 Pattern (Sem. II)
Saturday 17/05/2014	Material Technology (511108)	Computer Integrated Manufacturing (511208)
Tuesday 20/05/2014	Manufacturing Management (511109)	Finite Element Analysis (511209)
Thursday 22/05/2014	Industrial Automation (511110)	Advanced Mathematics (511210)
Saturday 24/05/2014	**Elective – III (511111)** a) Plastics Processing b) Product Life Cycle Management c) Welding & Joining d) Surface Treatment processes	**Elective –III: (511211)** a) Product Life Cycle Management b) Advanced Materials and Processing c) Manufacturing System Design d) Quality & Reliability Engineering
Tuesday 27/05/2014	**Elective – IV (Open) (511112)** a) Optimization Techniques b) Research Methodologies c) Intellectual Property Rights & Product Design d) Energy management	**Elective – IV :(511212)** a) Computer Aided Process Planning b) Technology Management c) Design of Experiments & Research Methodology d) Computational Fluid Dynamics

M.E. (Production) (Production CAD/CAM & Production Manufacturing & Automation)

(2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	Production CAD/CAM 2013 Credit Pattern (Sem. I)	Production Manufacturing & Automation 2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Computer Aided Design (511301)	Mathematics & Statistics (511101)
Monday 19/05/2014	Computer Aided Manufacturing (511302)	Industrial Automation (511102)
Wednesday 21/05/2014	Advanced Mathematics and Statistics (511303)	Advanced Manufacturing Processes (511103)
Friday 23/05/2014	Design of Experiments & Research Methodology (511304)	Research Methodology (511104)
Monday 26/05/2014	Elective – I (511305)	Elective – I (511105)

M.E. (Production) (Production CAD/CAM & Production Manufacturing & Automation)

(2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	Production CAD/CAM 2013 Credit Pattern (Sem. II)	Production Manufacturing & Automaion 2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Computer Integrated Manufacturing (511307)	Computer Integrated Manufacturing (511107)
Tuesday 20/05/2014	Finite Element Analysis (511308)	Tool and Die Design (511108)
Thursday 22/05/2014	Optimization Techniques (511309)	Advanced Joining Processes (511109)
Saturday 24/05/2014	Elective – II (511310)	Elective – II (511110)

M.E. (Computer) (Computer Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Applied Algorithms (510101) (Common to Network Engineering)	Applied Algorithms (510101)
Monday 19/05/2014	Emerging Trends in Computer Architecture (510102) (Common to Network Engineering)	High Performance Databases (510102)
Wednesday 21/05/2014	Principles & Practices for IT Management (510103) (Common to Network Engineering)	Advanced Computer Architecture (510103)
Friday 23/05/2014	**Elective-I (510104)** a)Advance Software Engineering b) Intelligent Systems c) Internet Routing Design d) Mobile computing	Research Methodology (510104)
Monday 26/05/2014	**Elective-II (510105)** a) Information & Network Security b) Advanced compilers c) Web Services and SOA d) Embedded System Design	Elective – I (510105)

M.E. (Computer) (Computer Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Distributed System (510108)	Operating System Design (510107)
Tuesday 20/05/2014	High Performance Database System (510109) (Common to Network Engineering)	Software Design and Architecture (510108)
Thursday 22/05/2014	Network Design, Modeling and Analysis (510110)	Advanced Computer Networks (510109)
Saturday 24/05/2014	**Elective – III (510111)** a)Software Design and Architecture b)Pattern Recognition and Machine Vision c)Network Programming d)Advanced Internet Programming	Elective – II (510110)
Tuesday 27/05/2014	**Elective – IV (510112)** a)Software Project Management b)Infrastructure Management c)Data Warehousing and Data Mining d)Open Elective (Self Study)	----------

M.E. (Computer) (Computer Networks) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Applied Algorithms (510301) (Common to Computer Engineering)	Advanced Network Algorithms (510201)
Monday 19/05/2014	Emerging Trends in Computer Architecture (510302) (Common to Computer Engineering)	Wireless Communication (510202)
Wednesday 21/05/2014	Principles & Practices for IT Management (510303) (Common to Computer Engineering)	Advanced Databases (510203)
Friday 23/05/2014	Elective – I (510304) a)Internet Routing Design b)Advanced TCP / IP	Research Methodology (510204)
Monday 26/05/2014	Elective - II(510305) a)Wireless Technology b)Information Security Audit & Management	Elective – I (510205)

M.E. (Computer) (Computer Networks) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Operating System Design (510308)	Network Design, Modeling and Analysis (510207)
Tuesday 20/05/2014	High Performance Database Systems (510309) (Common to Computer Engineering)	Distributed Systems (510208)
Thursday 22/05/2014	Advanced Software Engineering (510310)	High Performance Networks (510209)
Saturday 24/05/2014	Elective – III (510311) a)Network Programming b)Network Design, Modeling and Analysis	Elective – II (510210)
Tuesday 27/05/2014	Elective – IV (510312) a) Infrastructure Management b) Convergence Technology c) Open Elective (Self Study)**	----------

M.E. (Chemical) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Applied Statistics for Chemical Engineers (509101)	Mathematical and Statistical Methods (509101)
Monday 19/05/2014	Management of R & D in Chemical Industries (509102)	Process Optimization (509102)
Wednesday 21/05/2014	Advanced Separation Processes (509103)	Advanced Separation Processes (509103)
Friday 23/05/2014	**Elective-I (509104)** a) Computational Fluid Dynamics b) Process Design & Synthesis c) Advanced Thermodynamics d) Computer Aided Design	Research Methodology (509104)
Monday 26/05/2014	**Elective-II (509105)** a) Industrial Pollution Control b) Process Optimization c) Drugs & Pharmaceutical Engineering d) Fluidization Engineering	Elective – I (509105)

M.E. (Chemical) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Process Modeling and Simulation (509108)	Advanced Transport Phenomena (509107)
Tuesday 20/05/2014	Advanced Transport Phenomena (509109)	Advanced Process Control (509108)
Thursday 22/05/2014	Advanced Process Control (509110)	Advanced Reaction Engineering (509109)
Saturday 24/05/2014	**Elective – III (509111)** a) Catalysis and Surface Phenomenon b) Advanced Reaction Engineering c) Mathematical Methods in Chemical Engineering d) Bioprocess Engineering	Elective – II (509110)
Tuesday 27/05/2014	**Elective – IV OPEN (509112)** a)Catalysis and Surface Phenomenon b)Process Optimization c)Fuel Cells Technology	----------

M.E. (Chemical) (Environmental Engineering)(2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Applied Statistics for Environmental Engineers (509131)	Applied Statistics for Environmental Engineers (509131)
Monday 19/05/2014	Environmental Geosciences (509132)	Environmental Management (509132)
Wednesday 21/05/2014	Environmental Chemistry (509133)	Environmental Chemistry (509133)
Friday 23/05/2014	**Elective-I (509134)** a) Modeling of Environmental Systems b) Groundwater Contamination and Pollution Transport. c) Environmental Policies and Legislations d) Air and Noise Pollution Control	Research Methodology (509134)
Monday 26/05/2014	**Elective-II (509135)** a) Membrane Technology in Environmental Engineering b) Environmental Auditing and EMS c) Agricultural Pollution and control d) Environmental Impact Assessment and Economics	Elective – I (509135)

M.E. (Chemical)(Environmental Engineering)(2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Wastewater Treatment & Design (509138)	Wastewater Treatment and Design (509137)
Tuesday 20/05/2014	Solid Waste Management (509139)	Solid Waste Management (509138)
Thursday 22/05/2014	Industrial Waste Treatment (509140)	Industrial Waste Treatment (509139)
Saturday 24/05/2014	**Elective III (509141)** a) Ecology and Risk Assessment b) Water Quality Modeling c) Modern Trends in Environmental Engineering d) Environmental Biotechnology	Elective – II (509140)
Tuesday 27/05/2014	**Elective IV (OPEN) (509142)** Ground Water Contamination & Pollution Control	----------

M.E. (Petroleum Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Numerical Methods & Simulation in Petroleum Engineering (512101)	Numerical Simulation in Petroleum Engineering (512101)
Monday 19/05/2014	Petroleum Reservoir Management (512102)	Geology in Reservoir Description (512102)
Wednesday 21/05/2014	Horizontal Multilateral & Intelligent Wells (512103)	Advanced Drilling Engineering (512103)
Friday 23/05/2014	**Elective-I (512104)** a) Advanced Geological Methods in Petroleum Exploration & Development b) Reservoir Petro-physics c) Oil & Gas Field Development d) Petroleum Business Strategies & Risk Analysis	Research Methodology (512104)
Monday 26/05/2014	**Elective-II (512105)** a) Modern Completion Technology b) Well Design & Engineering c) Well Testing & Analysis d) Well control	Elective – I (512105)

M.E. (Petroleum Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	GIS and Computer Applications in Petroleum Industry (512108)	Advanced Reservoir Engineering (512107)
Tuesday 20/05/2014	Environmental Management Technology and Safety Measures (512109)	Environmental Technology in Petroleum Engineering (512108)
Thursday 22/05/2014	Advanced Natural Gas Engineering (512110)	Advanced Production Engineering (512109)
Saturday 24/05/2014	**Elective – III (512111)** a) Artificial Lift Techniques b) Advanced Stimulation Techniques c) Piping Design and Engineering	Elective – II (512110)
Tuesday 27/05/2014	**Elective – IV OPEN (512112)** a) Technology of Coal Bed Methane b) Unconventional Hydrocarbon Resources and Development Strategies c) Advanced offshore Technology d) Open elective, can be taken from any branch of elective	----------

M.E. (Petrochemical Engineering) (2013 Credit Pattern) Sem. I

Time : 2.30 p.m. to 5.30 p.m.

Day and Date	M.E. Petrochemical Engineering – Sem. I
Friday **16/05/2014**	Recent Trends in Petroleum Refining Operations (512201)
Monday **19/05/2014**	Advanced Transport Phenomena (512202)
Wednesday **21/05/2014**	Advanced Numerical and Statistical Methods (512203)
Friday **23/05/2014**	Research Methodology (512204)
Monday **26/05/2014**	Elective – I (512205)

M.E. (Petrochemical Engineering) (2013 Credit Pattern) Sem. II

Time : 2.30 p.m. to 5.30 p.m.

Day and Date	M.E. Petrochemical Engineering – Sem. II
Saturday **17/05/2014**	Applied Process Design and Synthesis (512207)
Tuesday **20/05/2014**	Safety, Health and Environment in Petrochemical Plants (512208)
Thursday **22/05/2014**	Advanced Process Control (512209)
Saturday **24/05/2014**	Elective – II (512210)

M.E. (Information Technology) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Applied Algorithms (514421)	Mathematical Foundation of Information Technology (514401)
Monday 19/05/2014	Software Engineering Methodologies (514402)	Applied Algorithms (514402)
Wednesday 21/05/2014	Advance Operating Systems (514403)	Advance Operating System (514403)
Friday 23/05/2014	**Elective-I (514422)** a) Software Architecture(514404)(A) b) Real Time & Embedded System (514404)(B) c) Bioinformatics (514422)(C)	Research Methodology (514404)
Monday 26/05/2014	**Elective-II (514423)** a) Information Assurance & Security (514405)(A) b) Network Programming (514422)(B) c) Geographical Information Systems (514405)(C)	Elective – I (514405)

M.E. (Information Technology) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Net centric Computing (514426)	Wireless Communication Technologies (514407)
Tuesday 20/05/2014	Advance Trends in Database Systems (514409)	Advanced Database Systems (514408)
Thursday 22/05/2014	Management Trends in Information Technology (514427)	Advance Computer Architecture (514409)
Saturday 24/05/2014	**Elective – III (514428)** a) Internet and Web Technologies (514411)(A) b) Advanced Topics in Operating Systems (514411)(B) c) Mobile Computing and M Commerce (514411)(C) d) User Interface Design (514428) (D)	Elective – II (514410)
Tuesday 27/05/2014	**Elective – IV (514439)** a) Internet Routing Design (514428)(A) b) Advance Network Programming (514412)(B) c) High Performance Computer Networks (514412)(C) Open Elective II (Self Study)** i)Service Oriented Architecture (514429)(D)	----------

M.E. (Industrial Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Economics (511201)	Economics (511201)
Monday 19/05/2014	Work Study & Ergonomics (511202)	Work Study & Ergonomics (511202)
Wednesday 21/05/2014	Optimization Techniques & Simulation Modeling (511203)	Optimisation Techniques and Simulation (511203)
Friday 23/05/2014	**Elective-I (511204)** a) Marketing Management b) Human Resource Management c) Entrepreneurship Development d) World Class Manufacturing	Environmental Engineering & Energy Resoruce Management (511204)
Monday 26/05/2014	**Elective-II (511205)** a) Facilities planning b) Network & Project Management c) Enterprise Resource Planning & Supply Chain Management d) System Engineering	Elective – I (511205)

M.E. (Industrial Engineering) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Reliability Engineering & Research Methodology (511208)	Reliability Engineering & Research Methodology (511208)
Tuesday 20/05/2014	Costing & Finance (511209)	Costing & Finance (511209)
Thursday 22/05/2014	Productivity Management (511210)	Productivity Management (511210)
Saturday 24/05/2014	**Elective – III (511211)** a) Human Factors Engineering b) Process Planning & Manufacturing Engineering' c) Management of Service Sector d) Industrial & Commercial law	Elective – II (511211)
Tuesday 27/05/2014	**Elective IV – OPEN (511212)** a) Organizational Behavior b) Operations Management c) Product Design & Intellectual Property Rights d) Environmental Engineering & Energy Management.	----------

M.E. (Instrumentation & Control) (Process Instrumentation & Biomedical Instrumentation) (2008 Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)
Friday 16/05/2014	Transducer Design (506101)
Monday 19/05/2014	Mathematical Methods in Instrumentation (506102)
Wednesday 21/05/2014	Communication Protocols for Instrumentation (506103)
Friday 23/05/2014	Analytical Instrumentation (506104)
Monday 26/05/2014	**Elective : I (5061105)** a)Industrial Automation (506105) b)Building Automation (506105) c)Geotechnical Instrumentation (506105) **Biomedical Instrumentation (5061201)** a)Fundamentals of Biomedical Instrumentation(5061201) b)Introduction to Physiology and Anatomy (5061201)

M.E. (Instrumentation & Control) (Process Instrumentation & Biomedical Instrumentation) (2008 Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)
Saturday 17/05/2014	Control System Design (5061108)
Tuesday 20/05/2014	Advanced Signal Processing (5061109)
Thursday 22/05/2014	Organisational Behaviour & Management (5061110)
Saturday 24/05/2014	**Elective : II (5061111)** a) Modern Control Theory ((5061111) b) Mechatronics (5061111) c) Robotics (5061111) **Biomedical Instrumentation(5061204)** a) Biosignal Processing (5061204) b) Rehabilitation Engineering (5061204)
Tuesday 27/05/2014	**Elective : III (5061112)** a) Advanced Process Instrumentation (5061112) b) Automobile Instrumentation (5061112) c) Open Elective **Biomedical Instrumentation*(5061205)** a) Bio-imaging Modality (5061205) b) Biophotonics (5061205) c) Open Elective

M.E. (Instrumentation & Control) (Process Instrumentation & Biomedical Instrumentation) (2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	Process Instrumentation – 2013 Credit Pattern (Sem. I)	Biomedical Instrumentation 2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Mathematical Methods in Instrumentation (506101) (Common to Bio-Medical Instrumentation)	Mathematical Methods in Instrumentation (506101) (Common to Process Instrumentation)
Monday 19/05/2014	Transducer Design (506102)	Bio-Signal Processing (506202)
Wednesday 21/05/2014	Industrial Automation (506103)	Analytical Instrumentation (506203)
Friday 23/05/2014	Research Methodology (506104) (Common to Bio-Medical Instrumentation)	Research Methodology (506104) (Common to Process Instrumentation)
Monday 26/05/2014	Elective – I (506105)	Elective – I (506205)

M.E. (Instrumentation & Control) (Process Instrumentation & Biomedical Instrumentation) (2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	Process Instrumentation – 2013 Credit Pattern (Sem. II)	Biomedical Instrumentation 2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Advanced Process Control (506107)	Transducer Design (506207)
Tuesday 20/05/2014	Embedded System Design (506108)	Digital Image Processing (506208)
Thursday 22/05/2014	Advanced Control System (506109)	Communication Protocols for Instrumentation (506209)
Saturday 24/05/2014	Elective – II (506110)	Elective – II (506210)

M.E. (Polymer) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Mathematical and Statistical Methods (509115)	Mathematical and Statistical Methods (509115)
Monday 19/05/2014	Principles of Management (509116)	Principles of Management (509116)
Wednesday 21/05/2014	Polymer Processing and Testing (509117)	Advanced Polymer Technology (509117)
Friday 23/05/2014	**Elective I : (509118)** a) Polymer Reaction Engineering b) Transport Phenomena in Polymers c) Synthesis and Chemistry of Polymers	Research Methodology (509118)
Monday 26/05/2014	**Elective II : (509119)** a)Polymer Rheology b)Mold and Die Design c)Packaging Technology	Elective – I (509119)

M.E. (Polymer) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Polymer Physics and Characterization (509122)	Polymer Processing and Testing (509121)
Tuesday 20/05/2014	Polymer Structure and Properties (509123)	Polymer Physics and Characterization (509122)
Thursday 22/05/2014	Processing and Mechanics of Composites (509124)	Polymer Structure and Properties (509123)
Saturday 24/05/2014	**Elective – III: (509125)** a) Science and Engineering of Fibers b) Polymer Product Design c) Specialty Polymer Materials	Elective – II (509124)
Tuesday 27/05/2014	**Elective - IV : (509126) (Open)** a) Paints and Adhesives Elective IV b) Elastomer Technology C) Open Elective	----------

M.E. (Printing) (2008 Pattern & 2013 Credit Pattern) (Sem. I)

Time: 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. I)	2013 (Credit Pattern) (Sem. I)
Friday 16/05/2014	Probability, Statistics & Queuing Theory (508101)	Probability , Statistics and Regression Analysis (508101)
Monday 19/05/2014	Printing Technology Management (508102)	Printing Technology Management (508102)
Wednesday 21/05/2014	Modern Trends in Printing (508103)	Modern Trends in Printing (508103)
Friday 23/05/2014	**Elective-I (508104)** a) Workflow Management in Printing Industry b) Printing & Packaging Materials c) Design of Experiments & Research Methodology	Research Methodology (508104)
Monday 26/05/2014	**Elective-II (508105)** a) Digital Printing b) Entrepreneurship in Printing & Allied Fields c) Quality Control Systems & Productivity	Elective – I (508105)

M.E. (Printing) (2008 Pattern & 2013 Credit Pattern) (Sem. II)

Time : 2.30 p.m. to 5.30 p.m.

Day & Date	2008 Pattern (Sem. II)	2013 (Credit Pattern) (Sem. II)
Saturday 17/05/2014	Print Media Communications (508108)	Colour Science (508107)
Tuesday 20/05/2014	Web Handling on Press (508109)	Web Handling on Press (508108)
Thursday 22/05/2014	Substrate and Ink (508110)	Substrate and Ink (508109)
Saturday 24/05/2014	**Elective – III : (508111)** a) Multimedia Systems and Communication b)Total Productive Maintenance in Printing c) Press Finger Printing	Elective – II (508110)
Tuesday 27/05/2014	**Elective – IV (508112)** a)Open Elective (Self study) b)Advances in Converting and Packaging c)Analysis of Spot and Process inks	------

University of Pune
Ganeshkhind, Pune-411007
Ref. No. XCT/100
Date **: 05/02/2014**

Dr.Sampada Joshi
Controller of Examinations