

M.E. (Instrumentation & Control)(Biomedical Instrumentation), (Process Instrumentation)
 Industrial Engg, Chemical Engg, Polymer Engg., Petroleum
 Printing Engg. & Graphic Communication, Environmental Engg.

Seat No :

October/April 20 .

Sr. No. :



University of Pune

EXAMINATION FOR DEGREE IN MASTER OF ENGINEERING (REVISED 2008 COURSE)

UNIPUNE ID No.

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(Number given by Eligibility Section)

To,

THE CONTROLLER OF EXAMINATIONS,
 UNIVERSITY OF PUNE,
 Pune-411007.

Sir,

I request permission to present myself for the Examination in Master of Engineering ()
 2008 Course to be held in October/April, 20 , and pay herewith the prescribed Fee Rs. ()
 I desire to offer the undermentioned papers for Sem. (I/II/III/IV) Examination.

I am submitting Dissertation of the Topic

Yours faithfully,

Date :

Signature

Branch :

College :

Male

	1
--	---

Centre :

Female

	2
--	---

Name :

(in Capital Letter) Surname First Name Father's/Husband's Name Mother's Name
South Indians/Other should enter the Name in Usual Form

Name in Devnagari Script :

Date of Registration as Post-graduate Students :

Particulars of that Registration :

Date of Passing B.E. Examination :

Year and Month

Branch

Seat No.

University

Date of Obtaining B.E. Degree :

Last Appearance at M.E. Examination :

Month

Year

Seat No.

P.R.N.

(Copy of last appearance of M.E. Examination should be enclosed).

[P.T.O.]

CERTIFICATE BY RECOGNISED TEACHER / GUIDE

I certify that Shri./Smt.
has worked under my direction for two/four academic terms from to
in College / Institute / Department and that the Dissertation
on a synopsis of which has been signed by me is entirely the
work of the candidate and has been approved by the University.

.....
(Signature of the Guide) Signature
Designation

CERTIFICATE BY THE HEAD/PRINCIPAL OF THE INSTITUTION / COLLEGE

I certify that Shri./Smt.
has satisfactorily attended a course of lectures for each of papers. He/She has my
permission to appear for the Examination.

Signature
Designation

Address for Correspondence :
.....

M.E. (Instrumentation & Control) (Biomedical Instrumentation)
(2008 Course)

Sub. Code	Subject	Paper	TW	Oral	Pract.	Sub. Code	Subject	Paper	TW	Oral	Pract.
Sem. I						Sem. II					
5061101	Transducer Design	<input type="checkbox"/>	—	—	—	5061108	Control System Design	<input type="checkbox"/>	—	—	—
5061102	Mathematical methods in Instrumentation	<input type="checkbox"/>	—	—	—	5061109	Advanced Singal Processing	<input type="checkbox"/>	—	—	—
5061103	Communication ProtocoIs for Instrumentation	<input type="checkbox"/>	—	—	—	5061110	Organisational Behaviour & Management	<input type="checkbox"/>	—	—	—
5061104	Analytical Instrumentation	<input type="checkbox"/>	—	—	—	5061204	Elective II	<input type="checkbox"/>	—	—	—
5061201	Elective I	<input type="checkbox"/>	—	—	—	5061205	Elective III	<input type="checkbox"/>	—	—	—
5061202	Lab Practice I	—	<input type="checkbox"/>	—	—	5061206	Lab Practice II	—	<input type="checkbox"/>	—	—
5061203	Seminar I	—	<input type="checkbox"/>	—	—	5061207	Seminar II	—	<input type="checkbox"/>	—	—
Sem. III						Sem. IV					
6061201	Seminar III	—	<input type="checkbox"/>	—	—	6061203	Project Stage II	—	<input type="checkbox"/>	<input type="checkbox"/>	—
6061202	Project Stage I	—	<input type="checkbox"/>	—	—						

<i>Elective I (5061201) (any One)</i>		<i>Elective II (5061204) (any One)</i>		<i>Elective III (5061205) (any One)</i>	
A	Fundamentals of Biomedical Instrumentation <input type="checkbox"/>	A	Biosignal Processing <input type="checkbox"/>	A	Bio-imaging Modality <input type="checkbox"/>
B	Introduction to Physiology and Anatomy <input type="checkbox"/>	B	Rehabilitation Engineering <input type="checkbox"/>	B	Biophotonics <input type="checkbox"/>
		C	Robotics <input type="checkbox"/>	C	(Open Elective) <input type="checkbox"/>

M.E. (Instrumentation & Control) (Process Instrumentation)
(2008 Course)

Sub. Code	Subject	Paper	TW	Oral	Pract.	Sub. Code	Subject	Paper	TW	Oral	Pract.
Sem. I						Sem. II					
5061101	Transducer Design	<input type="checkbox"/>	—	—	—	5061108	Control System Design	<input type="checkbox"/>	—	—	—
5061102	Mathematical methods in Instrumentation	<input type="checkbox"/>	—	—	—	5061109	Advanced Singal Processing	<input type="checkbox"/>	—	—	—
5061103	Communication ProtocoIs for Instrumentation	<input type="checkbox"/>	—	—	—	5061110	Organisational Behaviour & Management	<input type="checkbox"/>	—	—	—
5061104	Analytical Instrumentation	<input type="checkbox"/>	—	—	—	5061111	Elective II (any <i>One</i>)				
5061105	Elective I (any <i>One</i>)					A. Modern Control Theory	<input type="checkbox"/>	—	—	—	
	A. Industrial Automation	<input type="checkbox"/>	—	—	—	B. Mechatronics	<input type="checkbox"/>	—	—	—	
	B. Building Automation	<input type="checkbox"/>	—	—	—	C. Robotics	<input type="checkbox"/>	—	—	—	
	C. Geotechnical Instrumentation	<input type="checkbox"/>	—	—	—	5061112	Elective III (any <i>One</i>)				
						A. Advanced Process Instrumentation	<input type="checkbox"/>	—	—	—	
5061105	Lab. Practice I	—	<input type="checkbox"/>	—	—	B. Automobile Instrumentation	<input type="checkbox"/>	—	—	—	
5061105	Seminar I	—	<input type="checkbox"/>	—	—	C. (Open Elective)	<input type="checkbox"/>	—	—	—	
						5061113	Lab. Practice II	—	<input type="checkbox"/>	—	—
						5061114	Seminar II	—	<input type="checkbox"/>	—	—
Sem. III						Sem. IV					
6061101	Seminar III	—	<input type="checkbox"/>	—	—	6061103	Project Stage II	—	<input type="checkbox"/>	<input type="checkbox"/>	—
6061102	Project Stage I	—	<input type="checkbox"/>	—	—						

5
ME (Industrial Engineering)
(2008 Course)

Sub. Code	Subject	Paper	TW	Oral	Pract.	Sub. Code	Subject	Paper	TW	Oral	Pract.
Sem. - I						Sem. - II					
511201	Economics	<input type="checkbox"/>	—	—	—	511208	Reliability Engineering & Research Methodology	<input type="checkbox"/>	—	—	—
511202	Work Study & Ergonomics	<input type="checkbox"/>	—	—	—	511209	Costing & Finance	<input type="checkbox"/>	—	—	—
511203	Optimization Techniques & Simulation Modeling	<input type="checkbox"/>	—	—	—	511210	Productivity Management	<input type="checkbox"/>	—	—	—
511204	Elective I	<input type="checkbox"/>	—	—	—	511211	Elective III	<input type="checkbox"/>	—	—	—
511205	Elective II	<input type="checkbox"/>	—	—	—	511212	Elective IV (Open)	<input type="checkbox"/>	—	—	—
511206	Lab Practice I	<input type="checkbox"/>	<input type="checkbox"/>	—	—	511213	Lab Practice II	—	<input type="checkbox"/>	—	—
511207	Seminar I	—	<input type="checkbox"/>	—	—	511214	Seminar II	—	<input type="checkbox"/>	—	—
Sem. - III						Sem. - IV					
611201	Seminar III	—	<input type="checkbox"/>	—	—	611203	Project Stage II	—	<input type="checkbox"/>	<input type="checkbox"/>	—
611202	Project Stage I	—	<input type="checkbox"/>	—	—						

Elective I (any One)

- A. Marketing Management
- B. Human Resource Management
- C. Entrepreneurship Development
- D. World Class Manufacturing

Elective III (any One)

- A. Human Factors Engineering
- B. Process Planning & Manufacturing Engineering
- C. Management of Service Sector
- D. Industrial & Commercial law

Elective II (any One)

- A. Facilities Planning
- B. Network & Project Management
- C. Enterprise Resource Planning & Supply Chain Management Rights
- D. Systems Engineering

Elective IV (any One)

- A. Organizational Behavior
- B. Operations Management
- C. Product Design & Intellectual Property Rights
- D. Environmental Engineering & Energy Management.

6
M.E. CHEMICAL
(2008 Course)

Sub. Code	Subject	Paper	TW	Oral	Pract.	Sub. Code	Subject	Paper	TW	Oral	Pract.
Sem. I						Sem. II					
509101	Applied Statistics for Chemical Engineers	<input type="checkbox"/>	—	—	—	509108	Process Modeling and Simulation	<input type="checkbox"/>	—	—	—
509102	Management of R & D in Chemical Industries	<input type="checkbox"/>	—	—	—	509109	Advanced Transport Phenomena	<input type="checkbox"/>	—	—	—
509103	Advanced Separation Processes	<input type="checkbox"/>	—	—	—	509110	Advanced Process Control	<input type="checkbox"/>	—	—	—
509104	Elective I	<input type="checkbox"/>	—	—	—	509111	Elective III	<input type="checkbox"/>	—	—	—
509105	Elective II	<input type="checkbox"/>	—	—	—	509112	Elective IV (Open)	<input type="checkbox"/>	—	—	—
509106	Lab Practice I	—	<input type="checkbox"/>	—	—	509113	Lab Practice II	—	<input type="checkbox"/>	—	—
509107	Seminar I	—	<input type="checkbox"/>	—	—	509114	Seminar II	—	<input type="checkbox"/>	—	—
Sem. III						Sem. IV					
609101	Seminar III (Based on Project)	—	<input type="checkbox"/>	—	—	609103	Project Stage II	—	<input type="checkbox"/>	<input type="checkbox"/>	—
609102	Project Stage I	—	<input type="checkbox"/>	—	—						

Elective I (any One) (509104)

1. Computational Fluid Dynamics
2. Process Design And Synthesis
3. Advanced Thermodynamics
4. Computer Aided Design

Elective III (any One) (509111)

1. Catalysis And Surface Phenomenon
2. Advanced Reaction Engineering
3. Mathematical Methods In Chemical Engineering
4. Bioprocess Engineering

Elective II (any One) (509105)

1. Industrial Pollution Control
2. Process Optimization
3. Drugs and Pharmaceutical Engineering
4. Fluidization Engineering

Elective IV (any One) (509112)

Open Elective

** Open Elective subject BOS Chemical Engineering will declare that the list of subjects, which can be taken under Open Elective.

**M. E. Polymer Engineering
(2008 Course)**

Sub. Code	Subject	Paper	TW	Oral	Pract.	Sub. Code	Subject	Paper	TW	Oral	Pract.
Sem. - I						Sem. - II					
509115	Mathematical and Statistical Methods	<input type="checkbox"/>	—	—	—	509122	Polymer Physics and Characterization	<input type="checkbox"/>	—	—	—
509116	Principles of Management	<input type="checkbox"/>	—	—	—	509123	Polymer Structure and Properties	<input type="checkbox"/>	—	—	—
509117	Polymer Processing and Testing	<input type="checkbox"/>	—	—	—	509124	Processing and Mechanics of Composites	<input type="checkbox"/>	—	—	—
509118	Elective I	<input type="checkbox"/>	—	—	—	509125	Elective III	<input type="checkbox"/>	—	—	—
509119	Elective II	<input type="checkbox"/>	—	—	—	509126	Elective IV (Open)	<input type="checkbox"/>	—	—	—
509120	Lab Practice I	—	<input type="checkbox"/>	—	—	509127	Lab Practice II	—	<input type="checkbox"/>	—	—
509121	Seminar I	—	<input type="checkbox"/>	—	—	509128	Seminar II	—	<input type="checkbox"/>	—	—
Sem. - III						Sem. - IV					
609104	Seminar III	—	<input type="checkbox"/>	—	—	609106	Project Stage II	—	<input type="checkbox"/>	<input type="checkbox"/>	—
609105	Project Stage I	—	<input type="checkbox"/>	—	—						

Elective - I (any One) (509118)

- a. Polymer Reaction Engineering
- b. Transport Phenomena in Polymers
- c. Synthesis and Chemistry of Polymers

Elective - III (any One) (509125)

- a. Science and Engineering of Fibres
- b. Polymer Product Design
- c. Specialty Polymer Materials

Elective - II (any One) (509119)

- a. Polymer Rheology
- b. Mold and Die Design
- c. Packaging Technology

Elective - IV (any One) (509126)

- a. Paints And Adhesives Elective IV
- b. Elastomer Technology
- c. Open

M.E. (Printing Engineering & Graphic Communication)
(For 2008 Course)

Sub. Code	Subject	Paper	TW	Oral	Pract.	Sub. Code	Subject	Paper	TW	Oral	Pract.
Sem. I						Sem. II					
508101	Probability, Statistics and Queueing Theory	<input type="checkbox"/>	—	—	—	508108	Print Media Communications	<input type="checkbox"/>	—	—	—
508102	Printing Technology Management	<input type="checkbox"/>	—	—	—	508109	Web handling on Press	<input type="checkbox"/>	—	—	—
508103	Modern Trends in Printing	<input type="checkbox"/>	—	—	—	508110	Substrate and Ink	<input type="checkbox"/>	—	—	—
508104	Elective I	<input type="checkbox"/>	—	—	—	508111	Elective III	<input type="checkbox"/>	—	—	—
508105	Elective II	<input type="checkbox"/>	—	—	—	508112	Elective IV	<input type="checkbox"/>	—	—	—
508106	Lab Practice I	—	<input type="checkbox"/>	—	—	508113	Lab Practice II	—	<input type="checkbox"/>	—	—
508107	Seminar I	—	<input type="checkbox"/>	—	—	508114	Seminar II	—	<input type="checkbox"/>	—	—
Sem. III						Sem. IV					
608115	Seminar III	—	<input type="checkbox"/>	—	—	608117	Project Stage II	—	<input type="checkbox"/>	<input type="checkbox"/>	—
608116	Project Stage I	—	<input type="checkbox"/>	—	—						

Elective I (any One) (508104)				Elective II (any One) (508105)			
508104 A	Workflow Management in Printing Industry	<input type="checkbox"/>		508105 A	Digital Printing	<input type="checkbox"/>	
508104 B	Printing and Packaging Materials	<input type="checkbox"/>		508105 B	Entrepreneurship in Printing and Allied Fields	<input type="checkbox"/>	
508104 C	Design of Experiments & Research Methodology	<input type="checkbox"/>		508105 C	Quality Control Systems and Productivity	<input type="checkbox"/>	
Elective III (any One) (508111)				Elective IV (any One) (508112)			
508111 A	Multimedia Systems and Communication	<input type="checkbox"/>		508112 A	Open Elective (Self Study)**	<input type="checkbox"/>	
508111 B	Total Productive Maintenance in Printing	<input type="checkbox"/>		508112 B	Advances in Converting and Packaging	<input type="checkbox"/>	
508111 C	Press Finger Printing	<input type="checkbox"/>		508112 C	Analysis of Spot & Process inks	<input type="checkbox"/>	

**** Open Elective subject-BOS Printing Engineering & Graphic communication Will declare the list of subjects which can be taken under open elective.**

M.E. (Environmental Engineering)
(2008 Course)

Sub. Code	Subject	Paper	TW	Oral	Pract.	Sub. Code	Subject	Paper	TW	Oral	Pract.
Sem. I						Sem. II					
509131	Applied Statistics for Environmental Engineers	<input type="checkbox"/>	—	—	—	509138	Wastewater Treatment & Design	<input type="checkbox"/>	—	—	—
509132	Environmental Geosciences	<input type="checkbox"/>	—	—	—	509139	Solid Waste Management	<input type="checkbox"/>	—	—	—
509133	Environmental Chemistry	<input type="checkbox"/>	—	—	—	509140	Industrial Waste Treatment	<input type="checkbox"/>	—	—	—
509134	Elective I	<input type="checkbox"/>	—	—	—	509141	Elective III	<input type="checkbox"/>	—	—	—
509135	Elective II	<input type="checkbox"/>	—	—	—	509142	Elective IV (Open)	<input type="checkbox"/>	—	—	—
509136	Lab. Practice I	—	<input type="checkbox"/>	—	—	509143	Lab. Practice II	—	<input type="checkbox"/>	—	—
509137	Seminar I	—	<input type="checkbox"/>	—	—	509144	Seminar II	—	<input type="checkbox"/>	—	—
Sem. III						Sem. IV					
509145	Seminar III (Based on Project)	—	<input type="checkbox"/>	—	—	509147	Project Stage II	—	<input type="checkbox"/>	<input type="checkbox"/>	—
509146	Project Stage I	—	<input type="checkbox"/>	—	—						

Elective I (any One) (509134)

1. Modeling of Environmental Systems
2. Groundwater Contamination and Pollution Transport
3. Environmental Policies and Legislations
4. Air and Noise Pollution Control

Elective III (any One) (509141)

1. Ecology and Risk Assessment
2. Water Quality Modeling
3. Modern Trends in Environmental Engineering
4. Environmental Biotechnology

Elective II (any One) (509135)

1. Membrane Technology in Environmental Engineering
2. Environmental Auditing and EMS
3. Agricultural Pollution and Control
4. Environmental Impact Assessment and Economics

Elective IV (any One) (509142)

Open Elective

** Open Elective subject BOS Environmental Engineering will declare that the list of subjects, which can be taken under Open Elective.

10
M.E. (Petroleum Engineering)
Revised Two Year Course (2008)

Sub. Code	Subject	Paper	TW	Oral	Pract.	Sub. Code	Subject	Paper	TW	Oral	Pract.
Sem. I						Sem. II					
512101	Numerical Methods and simulation in Petroleum Engineering	<input type="checkbox"/>	—	—	—	512108	GIS and Computer Applications in Petroleum Industry	<input type="checkbox"/>	—	—	—
512102	Petroleum Reservoir Management	<input type="checkbox"/>	—	—	—	512109	Environmental Management Technology and Safety Measures	<input type="checkbox"/>	—	—	—
512103	Horizontal, Multilateral & intelligent wells	<input type="checkbox"/>	—	—	—	512110	Advanced Natural Gas Engineering	<input type="checkbox"/>	—	—	—
512104	Elective I	<input type="checkbox"/>	—	—	—	512111	Elective III	<input type="checkbox"/>	—	—	—
512105	Elective II	<input type="checkbox"/>	—	—	—	512112	Elective IV (Open)	<input type="checkbox"/>	—	—	—
512106	Lab Practice I	—	<input type="checkbox"/>	—	—	512113	Lab Practice II	—	<input type="checkbox"/>	—	—
512107	Seminar I	—	<input type="checkbox"/>	—	—	512114	Seminar II	—	<input type="checkbox"/>	—	—
Sem. III						Sem. IV					
512115	Seminar III	—	<input type="checkbox"/>	—	—	512116	Project Stage II	—	<input type="checkbox"/>	<input type="checkbox"/>	—
512116	Project Stage I	—	<input type="checkbox"/>	—	—						

512104 Elective I (any One)

- a) Advanced Geological Methods in Petroleum Exploration and Development
- b) Reservoir Petrophysics
- c) Oil and Gas Field Development
- d) Petroleum Business Strategies and Risk Analysis

512105 Elective II (any One)

- a) Modern Completion Technology
- b) Well Design and Engineering
- c) Well Testing and Analysis
- d) Well control

512111 Elective III (any One)

- a) Artificial Lift Techniques
- b) Advanced Stimulation Techniques
- c) Piping Design and Engineering
- d) Advanced Offshore Technology

512112 Elective IV (Open) (any One)

- a) Technology of Coal Bed Methane
- b) Unconventional Hydrocarbon Resources & Development Strategies
- c) Open elective, can be taken from any branch of elective

11
M.E. (Petrochemical Engineering)
Revised Two Year Course (2008)

Sub. Code	Subject	Paper	TW	Oral	Pract.	Sub. Code	Subject	Paper	TW	Oral	Pract.
Sem. - I						Sem. - II					
512201	Advances in Petroleum Refining	<input type="checkbox"/>	—	—	—	512208	Applied Process Design for Petrochemical Plants	<input type="checkbox"/>	—	—	—
512202	Advanced Transport Phenomena	<input type="checkbox"/>	—	—	—	512209	Safety, Health and Environment in Petrochemical Plants	<input type="checkbox"/>	—	—	—
512203	Mathematical Methods in Petrochemical Engineering	<input type="checkbox"/>	—	—	—	512210	Advanced Process Control	<input type="checkbox"/>	—	—	—
512204	Elective I	<input type="checkbox"/>	—	—	—	512111	Elective III	<input type="checkbox"/>	—	—	—
512205	Elective II	<input type="checkbox"/>	—	—	—	512112	Elective IV (Open)	<input type="checkbox"/>	—	—	—
512206	Lab Practice I	—	<input type="checkbox"/>	—	—	512113	Lab Practice II	—	<input type="checkbox"/>	—	—
512207	Seminar I	—	<input type="checkbox"/>	—	—	512114	Seminar II	—	<input type="checkbox"/>	—	—
Sem. - III						Sem. - IV					
512215	Seminar III	—	<input type="checkbox"/>	—	—	512216	Project Stage II	—	<input type="checkbox"/>	<input type="checkbox"/>	—
512216	Project Stage I	—	<input type="checkbox"/>	—	—						

512204 Elective I

- a) Advanced Petrochemical Processes
- b) Petroleum Exploration, Drilling and Production
- c) Fuels, Combustion and Gasification Technology

512105 Elective II

- a) Novel Separation Techniques.
- b) Principles of Green Technologies
- c) Energy Engineering

512211 Elective III

- a) Modeling and Simulation of Petrochemical Processes
- b) Piping Design and Engineering
- c) Advanced Natural Gas Technology

512212 Elective IV (Open)

- a) Catalysis and Catalytic Reactor Design
- b) Multiphase Reactor Design
- c) Polymerization Process Modeling
- d) Any other elective from other branches