



राष्ट्रीय प्रौद्योगिकी संस्थान राउरकेला

National Institute of Technology Rourkela

Ref. No. NITR/AC/EXAM./12/M/4291

Dt.05.11.2012

Revised Programme for B. Tech., Dual Degree B.Tech & M.Tech, M.Sc.(2 Yr & 5Yr), and MA End-Sem.(Autumn) Exam. 2012-13.

Day 1 : Date / Day of Examination : 22-NOV-2012 (Thursday)

FIRST SESSION (8.30 A.M. To 11.30 A.M.)			SECOND SESSION (1.30 P.M. To 4.30 P.M.)		
Sl. No	Subject Code	Subject Name	Sl. No	Subject Code	Subject Name
1	BM343	Bioinformatics	1	BM421	Tissue engineering
2	CE311	Structural Design	2	CE401	Estimation and Construction Management
3	CH311	Heat Transfer Operations	3	CH421	Reaction Kinetics and Catalysis
4	CR331	Whiteware Technology	4	CR411	Advanced Ceramics
5	CS321	Data Communication	5	CS421	Computer Networks
6	CY101	Chemistry	6	CY533	Quantum Chemistry
7	CY511	Stereochemistry and Reaction Mechanism	7	EC433	Process Control & Instrumentation
8	EC300	Microprocessor	8	EE401	Power System Operation and Control
9	EE301	Electrical Machines II	9	HS535	Gender and Development
10	HS511	Technical and Business Communication	10	LS420	Applied Bioinformatics
11	ID311	Product Design - I	11	MA201	Mathematics - III
12	LS401	Microbiology	12	MA501	Abstract Algebra
13	MA403	Linear Algebra	13	MN431	Mine Environmental Engineering
14	ME331	Metal Machining and Automation	14	PH507	Nuclear and Particle Physics
15	MM311	Phase Transformation			
16	MN311	Surface Mining Technology			
17	PH301	Waves and Oscillation			
18	PH401	Mathematical Methods in Physics			

Day 2 : Date / Day of Examination : 23-NOV-2012 (Friday)

FIRST SESSION (8.30 A.M. To 11.30 A.M.)			SECOND SESSION (1.30 P.M. To 4.30 P.M.)		
Sl. No	Subject Code	Subject Name	Sl. No	Subject Code	Subject Name
1	BM321	Biomaterials	1	CE201	Civil Engineering Materials and Construction
2	BM341	Genetic Engineering	2	CE413	Advanced Design of Reinforced Concrete Structures
3	CE321	Mechanics of Soil	3	CH211	Processing and Handling of Materials
4	CH315	Mass Transfer Operations	4	CH419	Computational Fluid Dynamics
5	CR341	Physical Ceramics	5	CR211	Unit Operations in Ceramic Processing
6	CS331	Theory of Computation	6	CR421	Glasses for Advanced Technical Application
7	CY521	Principles of Inorganic Chemistry	7	CR441	Electrical and Magnetic Ceramics
8	EC341	Digital Signal Processing	8	CS211	Discrete Mathematics
9	EE311	Transmission and Distribution of Electric Power	9	CS425	Data Warehousing and Mining
10	HS522	Social Psychology and its Applications	10	CY525	Advanced Co-ordination Chemistry
11	ID341	Manufacturing Processes	11	EC416	Microwave Engineering
12	LS402	Biochemistry	12	EC431	PC based Instrumentation
13	MA101	Mathematics - I	13	EE243	Analog Electronics
14	MA405	Partial Differential Equations	14	EE405	Utilization of Electrical Energy and Drives

15	ME351	Fluid Mechanics
16	MM321	Iron Making
17	MN321	Rock Mechanics
18	PH403	Classical Mechanics

15	HS536	Trends and issues in Tribal Studies
16	LS203	Microbiology
17	LS504	Environmental Sciences and Biostatistics
18	MA551	Numerical Analysis
19	ME211	Kinematics and Dynamics of Machinery
20	ME431	Decision Modeling
21	MM201	Metallurgical Thermodynamics and Kinetics
22	MM442	Advanced Materials
23	MN201	Mine Development
24	MN441	Mine Legislation and Safety Engineering
25	PH201	Heat and Thermodynamics
26	PH541	Dielectric And Magnetic properties of Materials

Day 3 : Date / Day of Examination : 26-NOV-2012 (Monday)

FIRST SESSION (8.30 A.M. To 11.30 A.M.)		
Sl. No	Subject Code	Subject Name
1	CE100	Engineering Mechanics
2	CE130	Environment and Safety Engineering
3	CE403	Optimization Methods in Engineering
4	CR419	Biomaterials for Artificial Implants
5	CS433	Algorithm Design
6	EC200	Fundamentals of Communication Systems
7	EE209	Network Analysis
8	HS311	Communicative English.
9	HS312	Creative Writting
10	HS341	Managerial Economics
11	HS543	Global Issues in Development
12	ID201	Fundamental of Computer Graphics and Solid Modeling
13	ID220	Fundamentals of Computer Graphics and Solid
14	MA311	Linear Algebra
15	ME231	Total Quality Management
16	PH407	Quantum Mechanics - I

SECOND SESSION (1.30 P.M. To 4.30 P.M.)		
Sl. No	Subject Code	Subject Name
1	BM317	Fundamentals of Tissue Engineering
2	BM403	Biomedical Engineering
3	BM443	Introduction to Biotechnology
4	CE303	Remote Sensing and Geographical Information System
5	CH229	Basic Chemical Engineering
6	CH329	Process Plant Safety
7	CH439	Non-Traditional Optimization Techniques
8	CR219	Introduction to Ceramics
9	CS212	Object Oriented Programming and Web Application Using C#
10	CY211	Name Reaction And Rearrangements
11	CY413	Spectroscopic Methods of Analysis
12	CY431	Chemistry of Nanomaterials
13	EC340	Fundamentals of Digital Signal Processing
14	HS420	Human Resource Management.
15	HS428	Psychometrics
16	LS535	Basics in Molecular Medicine
17	MA424	Operations Research
18	ME311	Composite Material
19	ME417	Control System Engineering
20	ME450	Computational Fluid Dynamics and Heat Transfer
21	MM317	Materials Technology
22	MM325	Iron Making and Steel Making
23	MN206	Introductory Mining Technology
24	PH311	Fundamentals of Thermal & Statistical Physics
25	PH331	World of LASERS

Day 4 : Date / Day of Examination : 27-NOV-2012 (Tuesday)

FIRST SESSION (8.30 A.M. To 11.30 A.M.)		
Sl. No	Subject Code	Subject Name
1	BM311	Medical Signal and Signal Processing
2	BM358	Bioreactor Analysis and Design
3	CE331	Environment Engineering
4	CH337	Equipment Design (Mech. Aspects)

SECOND SESSION (1.30 P.M. To 4.30 P.M.)		
Sl. No	Subject Code	Subject Name
1	BM441	Protein Engineering
2	CE203	Mechanics of Solids
3	CE423	Advanced Foundation Engineering
4	CH223	Chemical Process Technology

5	CR327	Interface Science and Sol- Gel Processing
6	CR415	Bio-ceramics
7	CR435	Functional Materials and Devices
8	CS341	Microprocessors and Microcontrollers
9	CY231	Basic Physical Chemistry I (5 th Sem, PH&MA)
10	CY312	Basic Organic Chemistry-II
11	CY531	Thermodynamics and Chemical Equilibria
12	EC311	Analog Communication Systems
13	EE341	Embedded Systems
14	HS531	Social Institutions and Development
15	ID351	Industrial Mechatronics
16	LS440	Physical Sciences and Instrumentation
17	MA407	Topology
18	ME333	Process Control and Assurance Science
19	MM331	Deformation Theory of Metals
20	MN303	Material Handling Systems
21	PH101	Physics I
22	PH405	Statistical Mechanics

5	CH427	Colloid and Interfacial Engineering
6	CR223	Materials Thermodynamics
7	CR417	Unshaped Refractories
8	CR445	Application of Phase Diagrams
9	CS241	Analog Electronics
10	CY231	Basic Physical Chemistry I (3 rd Sem)
11	CY542	Pericyclic reactions and Photochemistry
12	EC201	Analog Electronics
13	EC419	Computer Communication Network
14	EC434	Analytical Instrumentation
15	EE425	Control System - II
16	EE427	Soft Computing
17	HS524	Cognitive Development and Assessment
18	HS539	Theory of Money, Output and Employment
19	LS201	Biochemistry
20	LS512	Developmental Biology
21	MA203	Real Analysis I
22	MA517	Lie Algebra
23	ME213	Mechanics of Solids
24	ME451	Power Plant Engineering
25	MM211	Science and Technology of Materials
26	MM449	Nanostructured Materials
27	MN451	Mine Management
28	PH551	Crystal Symmetry and Crystal Physics

Day 5 : Date / Day of Examination : 29-NOV-2012 (Thursday)					
FIRST SESSION (8.30 A.M. To 11.30 A.M.)			SECOND SESSION (1.30 P.M. To 4.30 P.M.)		
Sl. No	Subject Code	Subject Name	Sl. No	Subject Code	Subject Name
1	BM331	Bioheat and Mass Transfer	1	BM201	Anatomy and Physiology
2	CE301	Advanced Surveying	2	CE209	Concrete Technology
3	CE313	Advanced structural analysis	3	CE316	Advanced Mechanics of Solids
4	CH321	Fundamentals of Biochemical Engg.	4	CE451	Irrigation Engineering
5	CR333	Heat Transfer and Fluid Flow	5	CH225	Chemical Process Calculations
6	CR335	Instrumental Characterization	6	CH415	Fluidization Engineering
7	CS338	Systems Software	7	CR231	Properties of Ceramic Raw Materials
8	CY322	Basic Inorganic Chemistry-I	8	CS243	Digital Electronics
9	CY515	Spectroscopic Methods of Analysis	9	CS434	Image Processing
10	EC100	Basic Electronics Engineering	10	CY221	Chemistry of Industrial Materials
11	EC331	Control System Engineering	11	EC203	Networks
12	EE100	Basic Electrical Engineering	12	EC421	Digital VLSI Design
13	EE345	Communication Systems Principles	13	EE241	Network Theory
14	HS541	Economics of Development	14	ID221	Mechanisms and Machines
15	ID332	Interaction Design and Usability Engineering	15	LS513	Enzymology and Metabolism
16	LS405	Cell Biology	16	ME251	Engineering Thermodynamics
17	MA317	Linear Algebra	17	MM215	Physics of Materials
18	MA401	Real Analysis	18	MN207	Mining Geology
19	ME353	Internal Combustion Engines	19	MN208	Geostatistics
20	MM336	Mechanical Working of Metallic Materials	20	PH563	Physical Phenomena at Low Temperature
21	MN331	Solid Fuel Technology			
22	PH303	Optics			
23	PH409	Introduction to Spectroscopy			

Day 6 : Date / Day of Examination : 30-NOV-2012 (Friday)

FIRST SESSION (8.30 A.M. To 11.30 A.M.)			SECOND SESSION (1.30 P.M. To 4.30 P.M.)		
Sl. No	Subject Code	Subject Name	Sl. No	Subject Code	Subject Name
1	CS427	Network Security	1	CR418	Nanomaterials
2	EC415	Mobile Communication	2	CS435	Artificial Intelligence
3	EE203	Electrical Machines I	3	EE309	Power Generation Systems
4	EE417	High Voltage Engineering	4	MN336	Solid Fuels and Clean Coal Technology
5	MA315	Abstract Algebra			
6	ME250	Thermal Engineering			
7	ME411	Vibration and Noise Engineering			
8	MM431	Mechanical Behaviour of Materials			
9	MN305	Mineral Processing Technology			
10	PH511	Advanced Quantum Mechanics			
11	SM501	Organizational Behaviour and Structure			
12	SM601	Strategic Management			

Sd/-**Assistant Registrar (Academic)****Copy to: -**

- 1 All Notice Boards (Institute/Halls of Residence).
- 2 All Deans/ Chief Warden
- 3 Registrar.
- 4 Professor In-charge Examinations
- 5 All Wardens of Halls
- 6 All HODs are requested to send the question papers in sealed packets (packets supplied by Academic Office) containing required number of question papers Hall wise (actual student strength in the hall + 05 extra) as per the Hall arrangement list latest by **16.11.2012**. On the packet containing questions the HODs/ concerned faculty members are requested to clearly state the list of requisite tables, codes, charts etc, to be supplied to the student by the academic office during the examination. M.Tech examination arrangement may be done in the department. However, the programme & sitting arrangement may be sent to AR (Acad)/PIC Examinations by **19.11.2012**.
- 7 Security Officer.
- 8 AR (Technical Service).