



**राष्ट्रीय प्रौद्योगिकी संस्थान राउरकेला**  
**NATIONAL INSTITUTE OF TECHNOLOGY, ROURKELA-769008 (ODISHA)**

Ref. No. NITR/AC/EXAM./12/M/1162

Date:27-03-2012

**Revised Programme for B. Tech, Dual Degree B.Tech & M.Tech, Integrated M.Sc, M.Sc  
 and MA End-Semester (Spring) Examination, 2011-12.**

Date/Day	FIRST SESSION (7.00 AM -10.00 AM)			SECOND SESSION (10.30 AM -1.30 PM)		
	Sl.	Course	Course Name	Sl.	Course	Course Name
23.04.2012 (Monday)	1	PH-102	Physics-II	1	BM-254	Cell & Molecular Biology (BM/BT)
	2	CY-512	Structure & Functions of Biomolecules	2	CY-214	Basic Organic Chemistry-I (CY/MA/PH)
	3	MA-402	Measure Theory	3	CH-226	Fuels and Combustion
	4	PH-402	Numerical Technique in Physics	4	CE-202	Surveying
	5	LS-403	Immunology	5	EE-240	Meas. & Electronic Instrumentation.
	6	BM-312	Biomedical Instrumentation (BM)	6	ME-210	Design of Machine Elements (ME/ID)
	7	BM-342	Industrial Microbiology (BT)	7	MM-212	Casting & Solidification of Materials
	8	CH-330	Pertroleum Refinery Engg. & Petrochemicals	8	MN-202	Mine Surveying
	9	CE-312	Design of Steel Structures	9	CS-222	Database Management System
	10	EE-322	Control System-I	10	EC-204	Semiconductor Devices (EI&EC)
	11	ME-330	Metal Cutting & Tool Design	11	CR-230	Science of Ceramic Materials
	12	MM-314	Heat Treatment of Metallic Materials	12	BM-326	Surface Engineering of biomaterials (BM)
	13	MN-322	Geomechanics	13	CH-422	Simulation Mod. & Opt. of Chem. Process
	14	CS-312	System Analysis Design	14	CE-412	Prestressed Concrete
	15	EC-332	Electronic Instrumentation (EI/EC)	15	EE-406	High Voltage DC Transmission
	16	CR-310	Refractory Technology	16	ME-414	Mechatronics
	17	HS-500	Research Methodology	17	MM-435	Fracture Mechanics & Failure Analysis
	18	MA-326	Statistical Method (CY/MA/PH)	18	MN-400	Mine Planning
				19	CS-412	Software Engg.
				20	EC-430	Industrial Electronics & Instrumentation(EI)
				21	EC-442	A.T.D.S.P. (EC)
				22	CR-424	Composite Materials
				23	PH-562	Super Fluidity & Super Conductivity
				24	CY-514	Environmental Chemistry
				25	MA-502	Functional Analysis
				26	BM-641	Immunology (BT)
				27	LS-513	Enzymology & Metabolism
				28	HS-544	Environment and Development
24.04.2012 (Tuesday)	1	CE-100	Engineering Mechanics	1	BM-232	Biofluid Mechanics (BT)
	2	CE-130	Env. & Safety Engg.	2	CH-212	Fluid Dynamics (CH)
	3	CY-522	Chemistry of Transition & Non-transition	3	CE-212	Structural Analysis
	4	PH-408	Quantum Mechanics-II	4	EE-204	Electro Magnetic Field
	5	MA-404	Functions of Complex Variable	5	ME-230	Primary Production Process
	6	LS-404	Molecular Biology & Biotechnology	6	MM-220	Unit Process of Extraction
	7	HS-542	Poverty, Inequality & Human Dev.	7	MN-204	Mining Machinery
	8	BM-314	Biomedical Image Processing (BM)	8	CS-242	Comp. Org. & Architecture
	9	CH-334	Process Dynamics & Control (CH)	9	EC-202	Digital Electronics (EI&EC/BM)
	10	CH-334	Process Dynamics & Control (BT)	10	CR-212	Ceramic Processing
	11	CE-322	Geo-Technical Engineering	11	CY-234	Basic Physical Chemistry-II
	12	EE-312	Switch Gear & Protective Devices	12	MA-224	Linear Programming & Theory of Games
	13	ME-350	Heat Transfer	13	PH-204	Introduction to Mechanics
	14	MM-324	Steel Making	14	ID-222	Geometric and Solid Modelling
	15	MN-313	Underground Mining Technology	15	BM-462	Structural Biology (BM/BT)
	16	CS-336	Digital Signal Processing	16	CH-434	Project Engineering

Date/Day	FIRST SESSION (7.00 AM -10.00 AM)			SECOND SESSION (10.30 AM -1.30 PM)		
	Sl.	Course	Course Name	Sl.	Course	Course Name
	17	EC-334	Instrumentation Devices (EI)	17	CE-452	Water Resources Engineering
	18	EC-314	Digital Communication (EC)	18	EE-404	Renewable Energy System
	19	CR-322	Glass Technology	19	ME-434	Computer Graphics for CAD /CAM
	20	CY-313	Natural Products	20	MM-446	Composite Materials
	21	MA-324	Number Theory	21	MN-435	Eco-friendly Mining
	22	PH-204	Introduction to Mechanics	22	CS-435	Artificial Intelligence
				23	EC-424	Embedded Computing System (EI/EC)
				24	CR-426	Tribology of Materials
				25	CY-526	Bioinorganic Chemistry
				26	PH-554	Physics of Thin Film Technology
				27	MA-554	Graph Theory
				28	LS-581	Cancer Biology
				29	LS-530	Aquatic Biology & Marine Biotechnology
				30	LS-531	Epigenetics
				31	LS-532	Molecular Medicine
				32	LS-582	Molecular Biophysics
				33	HS-534	Natural Resource Management and Sustainable Development
25.04.2012 (Wednesday)	1	MA-102	Mathematics-II	1	MA-202	Mathematics-IV (All Branches)
	2	CY-532	Chemical Kinetics & Photochemistry	2	BM-658	Computational Fluid Dynamics in Bio Engg. (BM)
	3	PH-406	Condensed Matter Physics	3	BM-391	Special Topics in Biotechnology and Medical Engineering-I(BT)
	4	MA-524	Statistical Methods	4	CH-428	Disaster Management in Chemical Industries
	5	LS-441	Biostatistics	5	CE-421	Ground Improvement Techniques
	6	HS-532	Planning & Policy Issues in India	6	EE-454	Digital Communication
	7	BM-322	Biomechanics (BM)	7	ME-440	Industrial Management
	8	CH-336	Chemical Engineering Mathematics	8	MM-468	Joining of Materials
	9	CE-342	Transportation Engg.	9	MN-442	Mine Fires & Spontaneous Heating
	10	MM-352	Material Characterization Technique	10	CS-434	Image Processing
	11	MN-332	Remote Sensing & its Applications.	11	EC-436	Biomedical Instrumentation (EI)
	12	CS-332	Algorithms Analysis and Design	12	EC-412	Antenna Analysis & System
	13	EC-312	Electromagnetic Theory (EI/EC)	13	CY-558	Organometallic Chemistry
	14	CR-346	Nano Ceramics	14	PH-508	Atomic & Molecular Physics
	15	CY-323	Basic Inorganic Chemistry-II	15	MA-556	Number Theory
	16	CY-322	Basic Inorganic Chemistry-I(MA/PH)	16	CR-446	Thin Film and Coating
26.04.2012 (Thursday)	1	EE-101	Basic Electrical Technology	1	BM-202	Basic Clinical Science (BM)
	2	EC-100	Basic Electronics	2	CH-220	Chemical Engg. Thermodynamics. (BT/CH)
	3	MA-522	Operation Research (MA & CR)	3	CE-252	Fluid Mechanics
	4	PH-404	Electrodynamics	4	EE-242	Digital Electronics & Microprocessor
	5	CY-535	Electro Chemistry	5	EE-202	Electrical Engineering (ME/EI/EC)
	6	LS-423	Advanced Techniques	6	MM-227	Fuel Technology
	7	HS-533	Social, Anthropological Political Perspective in Development	7	MN-205	Mineral Exploration
	8	BM-368	Bio Informatics (BT)	8	CS-335	Computer Graphics & Multimedia
	9	CH-312	Transport Phenomena	9	ID-232	Engg Materials & Heat Treatment Process
	10	CE314	Structural Dynamics	10	CR-244	Introduction to Engg. Materials
	11	CE-318	Finite Element Method	11	CR-248	Fuels, Furnance and Stoichiometry
	12	EE-336	Advanced Instrumentation	12	PH-202	Electricity & Magnetism (CY/MA/PH)
	13	EE-356	Digital Signal Processing	13	EC-443	Digital Image Processing (EI/EC)
	14	ME-354	Refrigeration & Air Conditioning	14	CR-641	Nanomaterials
	15	MM-359	Engg. Polymers & its Applications	15	CH-426	Coal Processing Technology
	16	MN-330	Mine Ventilation	16	CY-519	Methods in Organic Synthesis

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	Sl.	Course	Course Name	Sl.	Course	Course Name
	17	CS-336	Systems Software	17	EE-408	Electromagnetic Field Theory
	18	EC-322	Embedded System (EI/EC)	18	BM-632	Artificial organ and Rehabilitative Engineering (BM)
	19	CR-336	Cement Technology			
	20	PH-302	Properties of Matter (MA/CY/PH)			
27.04.2012 (Friday)	1	CE-302	Disaster Management	1	EC-440	Soft Computing Techniques
	2	CH-228	Treatment of Industrial Effluents	2	EE-308	Utilization of Electrical Energy
	3	CH-338	Industrial Instrumentation and Process Control	3	EE-428	Electrical Drives
	4	CR-249	Material Science & Engineering	4	HS-311	Communicative English
	5	CS-343	Digital Logic Design	5	HS-321	Organisational Behaviour
	6	CY-232	Chemical Kinetic	6	HS-327	Cognitive Science
	7	MA-424	Operations Research	7	HS-418	Language and Writing
	8	MM-318	Principles and Practice of Heat Treatment	8	ID-230	Production Management
	9	MM-358	Experimental Techniques in Materials Engineering	9	MA-312	Real Analysis
	10	PH-462	Vaccum Science & Applications	10	ME-300	Finite Element Analysis
				11	ME-430	Industrial Management
				12	ME-436	Entrepreneurship
				13	CH-418	Recent Separation Technologies
				14	CR-339	Ceramics in Electronic Applications
				15	CY-431	Chemistry of Nanomaterials
				16	MM-448	Advanced Engineering Materials
				17	PH-312	Physics of Quantum World
				18	SM-502	Human Resource Management
				19	SM-602	Busines Ethics and Corporate Governance
30.04.2012 (Monday)	1	MN-304	Computer Application in Mining	1	CS-102	Data Structure & Algorithm
	2	EC-444	Soft Computing (EC)	2	BM351	Genetic Engineering (BM)
	3	CR-320	Science of Sintering	3	CS-333	Operating Systems
	4	CS-334	Operating System & Design	4	CS-326	Data Communication and Computer Networks
	5	MN-421	Rock Slope Technology	5	CH332	Process Equipment Design
	6	EC-439	Advanced Process Control (EI)	6	MN336	Solid Fuels and Clean Coal Technology
	7	EE-324	Power Electronics			
	8	ME-352	Fluid Dynamics & Hydraulics Machines			
	9	HS-523	Educational Psychology			
	10	HS-538	Urban Govranance and Development			

Sd/-

**Asst. 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 16.04.2012. 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.
- 7 Security Officer.
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