



RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

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M.Tech,M.E,M.Des,M.Arch2nd Sem. (C.B.C.S.).WINTER 2024

(412 to 434)

M.TECH, M.E., M.DES, M.ARCH. SECOND SEMESTER (C.B.C.S.) EXAMINATION OF WINTER 2024

**# PROGRAMME: WRITTEN #**  
**Time: 09.30 A.M. To 12.30 P.M.**

Sr. No.	Name of Branch	Day	Tuesday	Thursday	Saturday	Tuesday	Tuesday	Thursday
		Date	22-10-2024	24-10-2024	26-10-2024	29-10-2024	05-11-2024	07-11-2024
1	Structure Engineering		Finite Element Method	Theory of Plates & Shell	Foundation Design	Research Methodology	Elective –III	-----
2	Computer Science & Engineering		Advances in Algorithms	Advance Computer Network and Security	Advance Digital Image Processing	Foundation Course-I	Elective –III	-----
3	CAD/CAM		Advance FEM	Product Design & Development	Mechatronics	Foundation Course-1	Elective –III	-----
4	Environmental Engineering		Industrial Waste Water Treatment and Disposal	Air Quality Management	Municipal Solid Waste Management	Research Methodology	Elective-III	-----
5	Chemical Tech. (Food Tech.)		Advances in Food Science & Technology	Food Biotechnology	Food Safety & Food Regulations	Research Methodology	Elective-III	-----
6	Chemical Tech. (Petro. Tech.)		Multi component Distillation	Process Equipment and Piping Design	Petroleum Specialty Products	Research Methodology	Elective-III	-----
7	Chemical Tech. (Oil. Tech.)		Technology of Soaps, Detergents & Surfactants	Technological Advancement of Cosmetics and Allied Products	Modification of Oil and Fat Products including Surface Coatings	Research Methodology	Elective-III	-----
8	Chemical Tech. (Paint Tech.)		Manufacturing Methods machinery & Planning	Processing, Application & Technology of Inks	Application, Evaluation of Surface Coating & Industrial Waste Treatment	Research Methodology	Elective-III	-----
9	VLSI		Analog VLSI Design	VLSI Testing	Modeling of Digital System and Testing	Foundation Courses - I	Elective-III	-----
10	Mech. Engg. & Design		Advanced Mechanical Drives	Stress Analysis	Design of Mechanical Handling System	Foundation Courses - I	Elective –III	-----
11	Electronics Engg. Communication		Smart Antenna System	High Performance Communication and Networks	Wireless Communication and Networks	Foundation Courses –I	Elective –III	-----
12	Software System		Automata and Advanced Computability	Software Design and Construction	Device Driver Design and Development	Foundation Courses - I	Elective –III	-----
13	Integrated Power Syste		HVDC and FACTS	Power Quality	Power System Protection	Research Methodology	Elective –III	-----
14	Heat Power Engineering		Refrigeration & Air Conditioning Technologies	Thermal Engineering	Advanced Fluid Mechanics	Foundation Courses – I	Elective –III	-----
15	Chemical Engineering		Advanced Separation Processes	Advanced Process Dynamics & Control	Advanced Biochemical Engineering	Research Methodology	Elective –III	-----

16	Power Elect. & Power System	HVDC and FACTS	Power Quality	Advanced Electrical Drivers	Research Methodology	Elective –III	-----
17	Electronics Engineering	Digital System Modeling and Simulation	High Performance Communication Networks	Advanced System Design	Foundation Courses –I	Elective –III	-----
18	Industrial Drives & Control	Drivers System Design	AC Drivers	Electrical Transportation	Research Methodology	Elective –III	-----
19	M.Des[Industrial Design]	Product Development	Product Planning and Marketing	Human Factor Design	Foundation Courses –I	*****	-----
20	M. Arch. (In Arch. Education)	Introduction to Learning Methods –II	History of Architecture Education	Behavior and Expression Of Structures	Foundation Courses –I	*****	-----
21	M. Arch. (Environment Architecture)	Environmental Laws and Legislation	Renewable Energy Systems and Technology	Environmental Impact Assessment and Mitigation	Foundation Courses –I	*****	-----
23	M. Arch. (Urban Design)	Theory of Urban Form	Urban & Transport Planning Legislation & Practices	*****	Foundation Courses –I	*****	-----
24	M. Arch. (Landscape)	Landscape Construction Service - II	Landscape Professional Practice -I	Theory of Landscape -II	Foundation Courses –I	Research –I	-----
25	M.Tech. Computer Aided Structure Engineering	Advanced Steel Design.	Design of Composite Structures	Foundation Design.	Research Methodology.	Elective-III	-----
26	M.Tech Artificial Intelligence & Data Science.	Natural Language Processing.	Machine Learning	Neural Network	Elective-3(Discipline Specific).	Elective-4 (Discipline) (Open)	-----
27	<b>M.TECH. Defiance Technology</b>	Elective – IV	Combat Vehicle Dynamics	Combat System Engineering	Test & Evaluation of Weapon System	<b>Elective-III</b>	-----
28	M.Tech. (Infrastructure Enng. & Technology )	Design of High Rise Structures	Geotechnical Investigations & Ground Improvement Technique	Bridge Engineering & Water Retaining Structures	New Construction Materials & Technique	Research Methodology +	Program Elective III

**GENERAL INSTRUCTION S FOR SEATING ARRANGEMENT**

The name of the College Centre is already Printed on the Admission Card of each Candidate. However, it is notified for general information of the Candidates that: -

The seating arrangement for the Centre will be notified separately seven days prior to the Commencement of the written examination at the respective College / Centre, The Candidates concerned will also be able to get the necessary information from that chart of seating arrangement sent to the concerned College by University

**Nagpur**

**Date: 17-09-2024**

**Director**  
**Board of Examination & Evaluation**  
**Rashtrasant Tukadoji Maharaj University, Nagpur**

*P. T. O. (List of Electives)*

**List of Electives. M.TECH. & M.E. Second Sem. (C.B.C.S)**

Sr. No	Name of Branch	Elective-III	
1	<b>Structure Engineering</b>	1 High Rise Structures. 2 Designs Of Composite Construction. 3 New Engineering Materials & Technology.	*****
2	<b>Computer Science &amp; Engineering</b>	1. Advance Multimedia System. 2. Internet Of Things.	*****
3.	<b>CAD/CAM</b>	1 Computer Aided Tool Design. 2 Plastics & Composites. 3 Concurrent Engineering.	*****
4	<b>Environmental Engineering</b>	1. Rural Water Supply & Sanitation. 2. Environmental Biotechnology. 3. Environmental Engineering System & Optimization.	*****
5	<b>Chemical Technology (Food Tech.)</b>	1. Food Industry Waste Management. 2. Enzyme Technology.	*****
6	<b>Chemical Technology (Petro. Tech.)</b>	1. Advanced Separation Processes. 2. Advanced Process Dynamics & Control. 3. Advanced Chemical Reaction Engineering. 4. Environment, Health & Safety Industries.	*****
7	<b>Chemical Technology (Oil. Tech.)</b>	1. Environmental Aspects Of Oil & Allied Industries. 2. Polymeric Surfactants.	*****
8	<b>Chemical Technology (Paint Tech.)</b>	1.Functional Coatings (Super Hydrophobic & Self-Healing Coatings) 2. Chemistry & Technology Of Nano-Pigments.	*****
9	<b>VLSI</b>	1. System On Chip. 2. Micro Electro Mechanical Switches. 3. High Speed Semiconductor Devices & Circuits.	*****
10	<b>Mech. Engg. &amp; Design</b>	1. Tribology & Bearing Design. 2. Design Of Hydraulic & Pneumatic System.	*****
11	<b>Electronics Engineering Communication</b>	1. Advanced Communication Technologies. 2. Mobile Communication.	*****
12	<b>Software System</b>	1) System Performance & Evaluation. 2) Organization Theory & Behavior.	*****
13	<b>Integrated Power System</b>	1. Energy Audit & Management. 2. Converter For Non-Conventional Energy Sources.	*****

		3. Power System Planning.	
14	<b>Heat Power Engineering</b>	1. Heat Exchange Analysis & Design. 2. Computational Fluid Dynamics. 3. Thermal Storage System..	*****
15	<b>Chemical Engineering.</b>	1. Energy Conservation & Planning. 2. Artificial Neural Network & Evolutionary Algorithms. 3. Multiphase Flow. 4. Fuel Cell Technology.	*****
16	<b>Industrial Engineering</b>	1. Materials Management. 2. Mechatronics. 3. Value Engineering. 4. Project Evaluation & Management. 5. Maintenance Engineering.	*****
17	<b>M.E. Wireless Comm. &amp; Comp.</b>	1.Signal Processing & Smart Antennas For Wireless Communication. 2. Satellite Communication.	*****
18	<b>Power Electronics &amp; Power System</b>	1. Energy Audit & Management. 2. Converter For Non-Conventional Energy Sources. 3. Power System Planning.	*****
19	<b>Electronics Engineering</b>	1. Fault Tolerance In Digital Circuits. 2. Mobile communication. 3. Advanced Digital Image Processing. 4. Advanced Communication Technologies.	*****
20	<b>Industrial Drives &amp; Control</b>	1. Energy Audit & Management. 2. Converter For Non-Conventional Energy Sources. 3. Process Control & Instrumentation.	*****
21	<b>M.Des[Industrial Design]</b>	*****	*****
22	<b>M. Arch. (In Arch. Education)</b>	*****	*****
23	<b>M. Arch. (Environment Architecture)</b>	*****	*****
24	<b>M. Arch. (In Arch. Education)</b>	*****	*****
25	<b>M. Arch. (In Arch. Education)</b>	*****	*****
26	<b>M.Tech. Computer Aided Structure Engineering</b>	Elective-III 1.High Rise Structures. 2.Analysis of Shells & Folded Plates. 3.Structural Instrumentation	
27	<b>M.Tech Artificial Intelligence &amp; Data Science.</b>	Elective-3(Discipline Specific). 1T- Information Retrieval Systems, 2T- Block Chain Technology , 3T- Computer Vision	Elective-4 (Discipline) (Open) 1.- Digital Image Processing and Analysis , 2. - Cyber Security, 3. Internet of Think

28	M.TECH. Defiance Technology	<p style="text-align: center;"><b>Elective-III</b></p> <ol style="list-style-type: none"> <li>1. Robotics (MSS,MCC)</li> <li>2. Safety, Health, &amp; Hazard Management</li> <li>3. Fundamentals of Telemetry, Telecom &amp; Transponder</li> </ol>	<p>Elective – IV</p> <ol style="list-style-type: none"> <li>1.Computational Aerodynamics</li> <li>2. Acquisition , Tracking &amp; Pointing Technology</li> <li>3.Advance digital modulation Technologies &amp; standards</li> </ol>
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