

ESE-2024 Conventional Test Schedule, Mechanical Engineering

Doto	Tonio					
Date	Topic					
17 Mar 2024	N.T.: TH-1, TH-2, HT-1, RAC-1, MS-1, MS-2					
	R.T. :					
24 Mar 2024	N.T. : FMM-1, RAC-2, IE-2, RSE-1					
	R.T. : TH-2, MS-1, HT-1					
31 Mar 2024	N.T.: MECH-1, MECH-2, HT-2, RE-1					
	R.T. : RAC-1, RAC-2, MS-2					
07 Apr 2024	N.T. : FMM-2, PPE-1,RSE-2					
	R.T. : HT-1, HT-2, TH-1, FMM-1, IE-2					
14 Apr 2024	N.T.: ICE-1,ToM-2, MR-1					
	R.T.: FMM-2, RSE-1, RSE-2, PPE-1					
21 Apr 2024	N.T. : ToM-1, MR-2, PROD-1					
	R.T.: MS-1, MECH-1, MECH-2,TH-1					
28 Apr 2024	N.T. : IE-1, PPE-2, FMM-3,					
	R.T. : PPE-1, MS-2, HT-1, PROD-1,ToM-1, ICE-1					
05 May 2024	N.T. : PPE-3, PROD-2					
	R.T. : RAC-1, RAC-2, RE-1, IE-1, MR-1, MECH-1					
12 May 2024	N.T.: ToM-3, ICE-2					
	R.T. : MR-2, RSE-1, RSE-2, HT-1, HT-2, FMM-2					
19 May 2024	N.T. : RE-2, MD-1					
	R.T. : PPE-1, PPE-2, FMM-3, ToM-2, ToM-3					
26 May 2024	N.T.: Mech-3, MD-2					
	R.T. : FMM-1, FMM-2, PROD-1, PROD-2, MECH-1, ICE-2, MD-1					
02 June 2024	Full Length-1 (Test Paper-1 + Test Paper-2)					
09 June 2024	Full Length-2 (Test Paper-1 + Test Paper-2)					
16 June 2024	Full Length-3 (Test Paper-1 + Test Paper-2)					
Test Typ		Day				

Test Type	Timing	Day
Conventional Test	10:00 A.M. to 1:00 P.M.	Sunday
Conventional Full Length Test Paper-1	10:00 A.M. to 1:00 P.M	Sunday
Conventional Full Length Test Paper-2	02:00 P.M. to 5:00 P.M	Sunday

Note: The timing of the test may change on certain dates. Prior information will be given in this regard.

*N.T.: New Topic. *R.T.: Revision Topic

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Refrigeration Air Conditioning Wapour compression refrigeration, Refrigerants, Compressors, Other types of refrigeration systems like Vapour Absorption, Vapour rich, thermore electric and Variex tube refrigeration and Heady pump. Fluid Mechanics and Marchinery Basic Concepts and Preparties of Fluids, Mannenery, Fluid Statics, Surposer, Equations of Molinon such as velocity potential. Stream Function. PPE-I POWER Plant Engineering Renewable Sources of Renewable	Subject Code Details						
Tender T							
Heat Transfer ICEs I	Thermodynamic	Zeroth, First and Second Laws of Thermodynamics.			Entropy, Irreversibility and availability; Real and Ideal gases;		
Conduction, Thermal Resistance, Fine, Radiative heat transfer. ICE-1 ICE-1 Stand Cl Engines, Engine Systems and Components, Fuels. Refrigeration Air Conditioning RAC-1 Refrigeration Air Conditioning RAC-1 Vapour compression refrigeration Refrigerants. Some resistance of the Properties of Public Rac-1 Absorption, Vispour jet, therm electric and Voltox tube refrigeration and Heat power. FIMI-1 Basic Consepts and Properties of Fluids. Mancretry, Fluid Statos. Bysing, Cigations of Motion such as velocity potential. Stream Function. PPE-1 Power Plant Engineering Steam and Gas Turbines, Rankinn and Bray promp. PPE-1 Power Plant Engineering Sources of Energy Reciprocation and Refrigeration and Resistance. File Fluid send founds good collectors for multitube. Reciprocation and Resistance. PRE-1 Solar Radiation, Solar Thermal Energy collection— Public jet and Resistance and Engineers. Reciprocation and Robury Compressions. Reciprocation and Robury Compression. Resigneering Machanics (SolM) Rechanics Analysis of System of Forces, Friction, Centrol and Centre of Gravey, Dynamics. Mech-1 Basic Crystally Inverses. Mech-1 Basic Cystallography, Alloys and Phrase dispersion and Robury Compressions. Mech-1 Type of Inverses part desides, Nelson and Resignation and Robury Compressions. Mech-1 Type of Inverses part desides and August particular and Roburs of Gravey. Dynamics. Mech-1 Design of Machine Elements Mechanics Analysis of System of Forces, Friction, Centrol and Centre of Gravey, Dynamics. Mechanics and Centre of Gravey, Dynamics. Mechanics Machines PROD-1 Design of Machine Elements Mechanics Mechanics Mechanics Mechanics Analysis of System of Forces, Friction, Centrol and Roburs part desides and properties and discussion of the Medical properies and discussion of the Medical properties and discussion of th	_	HT-1					
IC Engines SI and Cl Engines, Engine Systems and Components, Fuels, RAC-1 Vapour compression refrigeration. Refrigerants, Compressors, Other types of refrigeration systems like Vapour Assorphon, Vapour jet, Herm decidier and Vortex tube on disperation and reduction on and the latent of the components of the composition and the latent of the composition of the compositi	Heat Transfer		•				
Refrigeration Air Conditioning			diative neat transfer.				
Refrigeration Air Conditioning Refrigeration Air Conditioning Associated and Properties of Fide States and Properties of Fide States and Machinery Fluid Mechanics Buryanov, Equations of Motion such as velocity potential. Steem Function. PPE-1 Power Plant Engineering Fluid Mechanics States and Properties of Fide States and Properties and	IC Engines		Components, Fuels.	Performance ch			
Perpendiction Air Conditioning				Emissions and Emission Control. Otto, Diesel and Dual Cycles.			
Compressors, Other types of refrigeration systems like Vapour Absorption. Vapour life them oelectric and Variex tube Filiation Mechanics and Machinery Power Plant Engineering Power Plant Engineering Renewable Sources of Energy Solar Radiation, Solar Thermal Energy collection - Plant Polaticon of the Machanics and performance, Solar Thermal Energy collection - Planticon of the Population							
Basic Concepts and Properties of Fluids, Manometry, Fluid Statics, Buoyance, Equations of Motion such as velocity potential, Stream Function. PPE-1 Power Plant Engineering Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Steam and Gas Turbines, Rankine and Brayton cycles with regeneration. Receiptionating and centrifugal pumps Petro wheel, Kaplan and chark through piets and other lytical and other hydraulic machines. Responses in pipes. PPE-2 PPE-3 PPE-3 PPE-3 Solar Photovolitaic Conversion, Harmessing of Wind Energy, Bio-mass and Titale Energy - Methods and Applications. Working principles of Fuel Cells. ToM-1 ToM-2 ToM-2 ToM-1 ToM-2 ToM-3 ToM-1 ToM-2 ToM-3 ToM-1 ToM-2 ToM-3 ToM-1 ToM-1 ToM-2 ToM-3 ToM-1 ToM-2 ToM-3 Search and Agricutoria, Heat Treatment. Ferrous and None Ferrous Metals, Non metaltic materials, Beaties of Nano-materials, Mechanical Properties and Testing for tool throribles. In the design of Land Agricutoria		Compressors, Other types of refrigeration systems like Vapour Absorption, Vapour jet, thermo electric and Vortex tube		Comfort and industrial air conditioning, Load calculations and			
Amonometry, Fluid States, Buyanaye, Equations of Milotion such as yelocity potential, Stream Function. PPE-I PPE-I PPE-3 PPE-		FMM-1	FM	M-2	FMM-3		
Power Plant Engineering Sleam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Sleam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Sleam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Renewable Sources of Energy Solar Radiation, Solar Thormal Energy collection - Flat Plais and focusing collectors their materials and performance. Solar Thormal Energy Storage, Applications — heating, cooling and Power Generation. Mech-1 Analysis of System of Forces, Friction, Centroid and Centre of Gravity, Dynamics Mechanics (SoM) Mech-1 Analysis of System of Forces, Friction, Centroid and Centre of Gravity, Dynamics Mechanisms and Machines Mechanisms and Machi		Manometry, Fluid Statics, Buoyancy, Equations of Motion such as	Viscous flow of inc Laminar and Turbuler	compressible fluids, nt flows, Flow through	Reciprocating and Centrifugal pumps, Pelton wheel, Kaplan and Francis Turbines and other hydraulic machines.		
Steam and Gas Turbines, Rankine and Brayton cycles with regeneration and reheat. Pulse jet and Ram Jet Bergines, Pacifications and cocing forwars - their in and design, types and applications and cocing forwars - their materials and performance. Sclar Thermal Energy Storage, Applications - heating, cooling and Power Generation. Solar Photovoltaic Conversion; Harnessing of Wind Energy, Bio-mass and Tital Energy - Methods and Applications, - heating, cooling and Power Generation. Mech-2				· · ·	PPE-3		
Solar Radiation, Solar Thermal Energy collection - Flat Plate and focusing collectors their materials and performance. Solar Thermal Energy storage, Applications - heating, cooling and Power Generation. Mech-1		· ·	analysis, Theory o Pulse jet and R	of Jet Propulsion – condensers, air ejectors, Electrostatic precipitators and cooling towers - their theo			
Flat Plate and focusing collectors their materials and performance. Solar Thermal Energy Storage, Applications — heating, cooling and Power Generation. Mechanics (SoM)		RSE-1			RSE-2		
Stresses and Strains-Compound Stresses and Stresses and Strains-Compound Stresses and Stresses and Strains, Bending Moment and Shear Force Diagrams.	Sources of	Flat Plate and focusing collectors th and performance. Solar Thermal Energy S	ir materials Bio-mass and Tidal Energy – Methoroge, Applications Working principles of Fu		dal Energy – Methods and Applications,		
Analysis of System of Forces, Friction, Centroid and Centre of Gravity, Dynamics. MS-1 Basic Crystallography, Alloys and Phase diagrams, Heart Treatment. TOM-1 Type of kinematics pair, Mobility, Inversions, Kinematic Analysis, Velocity and Acceleration and restration, cycloidal moliton, oscillating followers; Effect of Gyroscopic couple on automobiles, ships and aircrafts. Governors. MB-1 Design of Machine Elements Manufacturing, Industrial and Maintenance Englineering Manufacturing, Industrial and Maintenance Englineering Machanics Analysis of System of Forces, Friction, Centroid and Centre of Gravity, Dynamics. Analysis of Joyana Phase and Shear Force Diagrams. MS-2 Ferrous and Non Ferros Sweldals, Non metallic materials, Basics of Nano-materials, Mechanical Properties and Testing, Corrosion prevention and control. Type of kinematics pair, Mobility, Inversions, Kinematic Analysis. Velocity and Acceleration and retardation, cycloidal moliton, oscillating followers; Effect of Gyroscopic couple on automobiles, ships and aircrafts. Governors. MD-1 Design of Machine Elements MB-1 Design of static and dynamic loading; failure theories; fatigue strength and the S-N diagram; principles of the design of machine elements such as riveted, welded and bolted joints. PROD-1 IE-1 RE-1 RE-1 RE-1 RE-1 Metal casting-Metal forming, Metal Joining, computer Integrated manufacturing, FMS. Methology and inspection. MB-1 Machining and machine tool operations, Limits, fits and tolerances, Metrology and inspection. MR-1 Machining and machine tool operations, Limits, fits and tolerances, Metrology and inspection. MR-1 Machining and machine tool operations, Limits, fits and tolerances, Metrology and inspection. MR-1 Microprocessors and Micro controllers: Architecture, programming, I/O, Computer interfacing, Programmable logic controller. Sensors and actuators, Plezoelectric accelerometer, Hall effect sensor, Direct and Inverse Kinematics; Homogeneous Coordinates and Accelerometer, Hall effect sensor, D	Engineering	Mech-1					
Basic Crystallography, Alloys and Phase diagrams, Heat Treatment.	Mechanics	-	and Strains, Ben	ling Moment and deflection-Torsion, Thin and thi			
Machanisms and Machines Mechanisms and Machines Design of Machine Elements Manufacturing, Industrial and Maintenance Engineering Maintenance Engineering Machinisms and Maintenance Engineering Mechanisms Machines Machanisms Am Machines M	F t t	MS-1					
Type of kinematics pair, Mobility, Inversions, Kinematic Analysis, Velocity and Acceleration analysis of Planar Mechanisms. CAMa with uniform acceleration and retardation, cycloidal motion, oscillating followers; Effect of Gyroscopic couple on automobiles, ships and aircrafts. Governors. Design of Machine Elements Design for static and dynamic loading; failure theories; fatigue strength and the S-N diagram; principles of the design of machine elements such as riveted, welded and bolted joints.		Basic Crystallography, Alloys and Phase		Basics of Nano-materials, Mechanical Properties and			
Mechanisms and Machines		TOM-1	ТО	M-2	TOM-3		
Design of Machine Elements Design for static and dynamic loading; failure theories; fatigue strength and the S-N diagram; principles of the design of machine elements such as riveted, welded and bolted joints. PROD-1 IE-1 RE-1 Failure concepts and characteristics-Reliability, Failure analysis, Machine vibration, Data acquisition, Fault Detection, Vibration, Data acquisition, Fault Detection, Vibration Monitoring. PROD-2 IE-2 RE-2 Machining and machine tool operations, Limits, fits and tolerances, Metrology and inspection. Methatronics and Mechatronics and Mechatronics and Control, Inventory control Operations research - CPM-PERT Microprocessors and Micro controllers: Architecture, programming, I/O, Computer interfacing, Programmable logic controller. Sensors and actuators, Piezoelectric accelerometer, Hall effect sensor, and page and control planning and Control, Production planning	and	Kinematic Analysis, Velocity and Acceleration analysis of Planar Mechanisms. CAMs with uniform acceleration and retardation, cycloidal motion, oscillating followers; Effect of Gyroscopic couple on automobiles,	of undamped an systems, Transmissi	d damped SDOF bility Ratio, Vibration	gearing, Interference, Helical, Spiral and Worm Gears, Gear Trains- Simple, compound and Epicyclic. Slider crank mechanisms, Balancing of revolving and		
fatigue strength and the S-N diagram; principles of the design of machine elements such as riveted, welded and bolted joints. PROD-1 IE-1 RE-1 Failure concepts and characteristics—Reliability, Failure analysis, Machine Vibration, Data acquisition, Fault Detection, Vibration Monitoring. PROD-2 IE-2 Machining and machine tool operations, Limits, fits and tolerances, Metrology and inspection. Metrology and inspection. MR-1 Microprocessors and Micro controllers: Architecture, programming, I/O, Computer interfacing, Programmable logic controller. Sensors and actuators, Piezoelectric accelerometer, Hall effect sensor, and actuators, Piezoelectric accelerometer, Hall effect sensor, and actuators, Piezoelectric accelerometer, Hall effect sensor, and reversed and bolted joints. Shafts, Spur gears, rolling and sliding contact bearings, Brakes and clutches, flywheels. RE-1 Failure concepts and characteristics—Reliability, Failure analysis, Machine Vibration, Data acquisition, Fault Detection, Vibration Monitoring. Vibration, Data acquisition, Fault Detection, Vibration Monitoring. Field Balancing of Rotors, Noise Monitoring, Wear and Debris Analysis, Signature Analysis, NDT Techniques in Condition Monitoring. MR-2 Microprocessors and Micro controllers: Architecture, programming, I/O, Computer interfacing, Programmable logic controller. Sensors and actuators, Piezoelectric accelerometer, Hall effect sensor, and actuators, Piezoelectric accelerometer, Hall effect sensor, and actuators, Piezoelectric accelerometer, Hall effect sensor, and Parm Equation of four Axis SCABA Robot.					MD-2		
Metal casting-Metal forming, Metal Joining, computer Integrated manufacturing, FMS. Metal casting-Metal forming, Metal Joining, computer Integrated manufacturing, FMS. Production planning and Control, Inventory control Inventory control Production planning and Control, Vibration, Data acquisition, Fault Detection, Vibration Monitoring. PROD-2 Machining and machine tool operations, Limits, fits and tolerances, Metrology and inspection. Metal Casting-Metal forming, Metal Joining, Production planning and Control, Inventory control PROD-2 Machining and machine tool operations, Limits, fits and tolerances, Metrology and inspection. Operations research - CPM-PERT Microprocessors and Micro controllers: Architecture, programming, I/O,Computer interfacing, Programmable logic controller. Sensors and actuators, Piezoelectric accelerometer, Hall effect sensor, Arm Equation of four Axis SCARA Robot.		fatigue strength and the S-N diagram; princi	ples of the design of				
Metal casting-Metal forming, Metal Joining, computer Integrated manufacturing, FMS. Metal casting-Metal forming, Metal Joining, computer Integrated manufacturing, FMS. Production planning and Control, Inventory control Production planning and Cont		PROD-1	IE	-1	RE-1		
Machining and machine tool operations, Limits, fits and tolerances, Metrology and inspection. MR-1 Microprocessors and Micro controllers: Architecture, programming, I/O,Computer interfacing, Programmable logic controller. Sensors and actuators, Piezoelectric accelerometer, Hall effect sensor, Machining and machine tool Operations research - CPM-PERT Monitoring, Wear and Debris Analysis, Signature Analysis, NDT Techniques in Condition Monitoring. MR-2 Microprocessors and Micro controllers: Architecture, programming, I/O,Computer interfacing, Programmable logic controller. Sensors and actuators, Piezoelectric accelerometer, Hall effect sensor, Arm Equation of four Axis SCARA Robot.	Manufacturing,		· ·	-	Reliability, Failure analysis, Machine Vibration, Data acquisition, Fault		
operations, Limits, fits and tolerances, Metrology and inspection. MR-1 Microprocessors and Micro controllers: Architecture, programming, I/O,Computer interfacing, Programmable logic controller. Sensors and actuators, Piezoelectric accelerometer, Hall effect sensor, Monitoring, Wear and Debris Analysis, Signature Analysis, NDT Techniques in Condition Monitoring. MR-2 Robotics, Robot Classification, Robot Specification, notation; Direct and Inverse Kinematics; Homogeneous Coordinates an Arm Equation of four Axis SCARA Robot.	Maintenance	PROD-2	IE	-2	RE-2		
Microprocessors and Micro controllers: Architecture, programming, I/O,Computer interfacing, Programmable logic controller. Sensors and actuators, Piezoelectric accelerometer, Hall effect sensor,	Engineering	operations, Limits, fits and tolerances, Metrology and inspection.	Operations resea	arch - CPM-PERT	Monitoring, Wear and Debris Analysis, Signature Analysis, NDT Techniques in Condition Monitoring.		
Mechatronics and I/O, Computer interfacing, Programmable logic controller. Sensors and actuators, Piezoelectric accelerometer, Hall effect sensor, Arm Equation of four Axis SCABA Robot.					MR-2		
Optical Encoder, Resolver, Inductosyn, Pneumatic and Hydraulic actuators, stepper motor, Control Systems- Mathematical modeling of Physicalsystems, control signals, controllability and observability	Mechatronics and Robotics I/O,Computer interfacing, Programmable and actuators, Piezoelectric accelerome Optical Encoder, Resolver, Inductosyn, P actuators, stepper motor, Control Systems		ic controller. Sensors , Hall effect sensor, umatic and Hydraulic athematical modeling		Kinematics; Homogeneous Coordinates and		