



ACE[®]
Engineering Academy
Leading Institute for ESE/GATE/PSUs



TGPSC
ASSISTANT EXECUTIVE ENGINEERS
Online Test Series

Mechanical Engineering - Schedule

No.of Tests : 22 + 21 <i>free</i> practice tests of TGPSC-AEE-2022 OTS		
	TGPSC-AEE-2024	Practice Tests TGPSC-AEE-2022
Subject Wise Tests	18	17
Full Length Mock Tests	4	4
Total Tests - 43		

Note:

- ★ The Syllabus considered as per Previous year Notification of TGPSC-AEE.
- ACE Engineering Academy does not take any responsibility for deviations in syllabus in the final exam.
- ★ The Dates of Tests may Change according to the TGPSC-AEE Exam schedule.
- ★ All Tests will be active till TGPSC-AEE Examination.
- ★ Tests will be activated at 06:00 pm on the scheduled day.
- ★ Test series available in ENGLISH medium only.

Subject wise Tests

(No. of Questions: 30, Time duration: 30 Minutes)

Test No	Name of the Test	Max Marks	Date of Activation
Test-01	Engineering Mechanics: Free-body diagrams and equilibrium; Friction, rolling friction, belt – pulley, screw jack, edge, Trusses and Frames; Virtual work; Kinematics and Dynamics of Particles and Rigid Bodies in Plane Motion; Impulse and Momentum (Linear and Angular) and Energy Formulations; Impact.	60	06-11-2024
Test-02	Strength of Materials: Stress and Strain, Stress-Strain Relationship and Elastic Constants, Poisson's Ratio; Mohr's Circle For Plane Stress and Plane Strain; Thin Cylinders; Shear Force and Bending Moment Diagrams; Bending And Shear Stresses; Deflection Of Beams; Torsion Of Circular Shafts; Euler's Theory Of Columns; Energy Methods; Thermal Stresses; Testing Of Materials with Universal Testing Machine (UTM); Hardness And Impact Strength.	60	11-11-2024
Test-03	General Studies and General Abilities-1: Society, Culture, Heritage, Arts and Literature of Telangana. Policies of Telangana State.	30	12-11-2024
Test-04	Fluid Mechanics: Fluid Properties; Fluid Statics, Manometry, Buoyancy, Forces on Submerged Bodies, Stability of Floating Bodies; Fluid Acceleration; Differential Equations of Continuity and Momentum; Bernoulli's Equation; Viscous Flow of Incompressible Fluids, Boundary Layer, Elementary Turbulent Flow, Flow Through Pipes, Head Losses in Pipes and Bends. Turbomachinery: Pelton Wheel, Francis and Kaplan Turbines, Impulse and Reaction Principles, Velocity Diagrams.	60	16-11-2024
Test-05	Thermodynamics: Thermodynamic systems and processes; properties of pure substances, behavior of ideal and real gases; zeroth and first laws of thermodynamics, calculation of work and heat in various processes; second law of thermodynamics; thermodynamics property, availability and irreversibility; thermodynamic relations.	60	21-11-2024
Test-06	General Studies and General Abilities-2: Economic and Social Development of India and Telangana. Socio-economic, Political and Cultural History of Telangana with special emphasis on Telangana Statehood Movement and formation of Telangana state.	30	22-11-2024
Test-07	Engineering Materials: Structure and Properties of Engineering Materials, Heat Treatment, Stress-Strain Diagrams for Engineering Materials, Iron-carbon diagram. Metal Casting: Design of Patterns, Moulds and Cores; Solidification and Cooling; Riser and Gating Design. Metal Forming: Plastic Deformation and Yield Criteria; Fundamentals of Hot and Cold Working Processes; Load Estimation for Bulk (Forging, Rolling, Extrusion, Drawing) and Sheet (Shearing, Deep Drawing, Bending) Metal Forming Processes; Principles of Powder Metallurgy.	60	26-11-2024
Test-08	General Studies and General Abilities-3: Physical, Social and Economic Geography of India. Physical, Social and Economic Geography and Demography of Telangana.	30	27-11-2024
Test-09	Power Engineering: Air compressors-Reciprocating and rotary compressors; Rankine, Brayton Cycles with Regeneration, Inter cooling and Reheat. I.C. Engines: Air-standard Otto & Diesel Cycles, Combustion in S.I. & C.I. Engines, Performance & Testing of internal combustion engines. Refrigeration and Air-Conditioning: Vapour Refrigeration Cycle, Heat Pumps, Gas Refrigeration; Reverse Brayton Cycle; Moist Air: Psychrometric Chart, Basic Psychrometric Processes	60	01-12-2024
Test-10	General Studies and General Abilities-4: General Science; India's Achievements in Science and Technology. Environmental issues; Disaster Management- Prevention and Mitigation Strategies.	30	02-12-2024
Test-11	Joining Processes: Principles (Gas, Arc, Resistance and Solid State) of Welding, Brazing, Soldering; Adhesive Bonding. Machining and Machine Tool Operations: Mechanics of Machining; Basic Machine Tools; Single and Multi-Point Cutting Tools, Tool Geometry and Materials, Tool Life and Tool Wear; Economics of Machining; Principles of Non-Traditional Machining Processes; Principles of Work Holding Devices, Principals of Jigs and Fixtures. Metrology and Inspection: Limits, Fits and Tolerances; Linear and Angular Measurements; Comparators; Gauge; Interferometry; Form and Surface Finish Measurement; Alignment and Testing Methods; Tolerance Analysis in Manufacturing and Assembly. Computer Integrated Manufacturing: Basic concepts of CAD/CAM and their integration tools.	60	06-12-2024
Test-12	General Studies and General Abilities-5: Socio-economic, Political and Cultural History of Modern India with special emphasis on Indian National Movement. Indian Constitution; Indian Political System; Governance and Public Policy.	30	07-12-2024
Test-13	Production Planning and Control: Forecasting Models, Aggregate Production Planning, Scheduling, Materials Requirement Planning. Inventory Control: Deterministic Models; Safety Stock Inventory Control Systems. Operations Research: Linear Programming, Simplex Method Transportation, Assignment, Simple Queuing Models, PERT and CPM.	60	11-12-2024
Test-14	General Studies and General Abilities-6: Current affairs – Regional, National and International. International Relations and Events.	30	12-12-2024
Test-15	Theory of Machines: Displacement, Velocity and Acceleration Analysis of Plane Mechanisms; Dynamic Analysis of Slider-Crank Mechanism; Gears and Gear Trains; Flywheels, Gyroscope and Governors; Balancing of Reciprocating and Rotating Masses. Vibrations: Free and Forced Vibration of Single Degree of Freedom Systems, Effect of Damping; Vibration Isolation; Resonance; Critical Speeds of Shafts.	60	16-12-2024

Test No	Name of the Test	Max Marks	Date of Activation
Test-16	Heat-Transfer: Modes of Heat Transfer; One Dimensional Heat Conduction, Resistance Concept, Electrical Analogy, Fins; Unsteady Heat Conduction, Dimensionless Parameters in Free and Forced Convective Heat Transfer, Various Correlations for Heat Transfer in Flow Over Flat Plates and Through Pipes, Effect of Turbulence; Radiative Heat Transfer, Black And Grey Surfaces, Shape Factors, Network Analysis, Heat Exchanger Performance, LMTD and NTU Methods.	60	21-12-2024
Test-17	General Studies and General Abilities-7: Logical Reasoning; Analytical Ability and Data Interpretation. Basic English. (10th Class Standard)	30	22-12-2024
Test-18	Machine Design: Design For Static and Dynamic Loading; Failure Theories; Fatigue Strength; S-N Diagram; Design of Machine Elements such as Bolted, Riveted and Welded Joints, Shafts, Spur Gears, Rolling and Sliding Contact Bearings, Springs, Brakes and Clutches.	60	26-12-2024

Full Length Mock Test

(No. of Questions: 150, Time duration: 150 Minutes)

Test-19	Mock-1 PAPER-I (General Studies & General Abilities)	150	04-01-2025
Test-20	Mock-1 PAPER-II (Engineering Discipline)	300	05-01-2025
Test-21	Mock-2 PAPER-I (General Studies & General Abilities)	150	11-01-2025
Test-22	Mock-2 PAPER-II (Engineering Discipline)	300	12-01-2025

Free Practice Tests of TGPSC-AEE-2022 Online Test Series

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Test-02	Strength of Materials: Stress and Strain, Stress-Strain Relationship and Elastic Constants, Poisson's Ratio; Mohr's Circle For Plane Stress and Plane Strain; Thin Cylinders; Shear Force and Bending Moment Diagrams; Bending And Shear Stresses; Deflection Of Beams; Torsion Of Circular Shafts; Euler's Theory Of Columns; Energy Methods; Thermal Stresses; Testing Of Materials with Universal Testing Machine (UTM); Hardness And Impact Strength.	60	
Test-03	General Studies and General Abilities-1: Society, Culture, Heritage, Arts and Literature of Telangana. Policies of Telangana State.	30	
Test-04	Theory of Machines & Vibrations: Displacement, Velocity and Acceleration Analysis of Plane Mechanisms; Dynamic Analysis of Slider-Crank Mechanism; Gears and Gear Trains; Flywheels, Gyroscope and Governors; Balancing of Reciprocating and Rotating Masses. Vibrations: Free and Forced Vibration of Single Degree of Freedom Systems, Effect of Damping; Vibration Isolation; Resonance; Critical Speeds of Shafts.	60	
Test-05	Fluid Mechanics: Fluid Properties; Fluid Statics, Manometry, Buoyancy, Forces on Submerged Bodies, Stability of Floating Bodies; Fluid Acceleration; Differential Equations of Continuity and Momentum; Bernoulli's Equation; Viscous Flow of Incompressible Fluids, Boundary Layer, Elementary Turbulent Flow, Flow Through Pipes, Head Losses in Pipes and Bends.	60	
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Test-12	General Studies and General Abilities-5: Socio-economic, Political and Cultural History of Modern India with special emphasis on Indian National Movement. Indian Constitution; Indian Political System; Governance and Public Policy.	30	
Test-13	Engineering Materials: Structure and Properties of Engineering Materials, Heat Treatment, Stress-Strain Diagrams for Engineering Materials, Iron-carbon diagram. Metal Casting: Design of Patterns, Moulds and Cores; Solidification and Cooling; Riser and Gating Design. Metal Forming: Plastic Deformation and Yield Criteria; Fundamentals of Hot and Cold Working Processes; Load Estimation for Bulk (Forging, Rolling, Extrusion, Drawing) and Sheet (Shearing, Deep Drawing, Bending) Metal Forming Processes; Principles of Powder Metallurgy. Joining Processes: Principles (Gas, Arc, Resistance and Solid State) of Welding, Brazing, Soldering; Adhesive Bonding.	60	
Test-14	General Studies and General Abilities-6: Current affairs – Regional, National and International. International Relations and Events.	30	

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Test-16	<p>Production Planning and Control: Forecasting Models, Aggregate Production Planning, Scheduling, Materials Requirement Planning.</p> <p>Inventory Control: Deterministic Models; Safety Stock Inventory Control Systems.</p> <p>Operations Research: Linear Programming, Simplex Method Transportation, Assignment, Simple Queuing Models, PERT and CPM.</p>	60	
Test-17	<p>General Studies and General Abilities-7: Logical Reasoning; Analytical Ability and Data Interpretation. Basic English. (10th Class Standard)</p>	30	
Test-18	<p>Engineering Mechanics and I.C. Engines: Friction, rolling friction, belt – pulley, screw jack, wedge. Combustion in S.I. & C.I. Engines, Performance & Testing of internal combustion engines.</p>	60	

Full Length Mock Test

(No. of Questions: 150, Time duration: 150 Minutes)

Test-19	Mock-1 PAPER-I (General Studies & General Abilities)	150	01-10-2024
Test-20	Mock-1 PAPER-II (Engineering Discipline)	300	
Test-21	Mock-2 PAPER-I (General Studies & General Abilities)	150	
Test-22	Mock-2 PAPER-II (Engineering Discipline)	300	