

Syllabus For TANGEDCO – Assistant Engineer (AE)

Syllabus For TANGEDCO – Assistant Engineer (AE)

Part I: Engineering Mathematics (Common to All)

- Determinants and Matrices.
- Calculus and Differential Equations.
- Vector Calculus.
- Functions of Complex Variables and Complex Integration.
- Transforms.
- Numerical Methods.
- Applied Probability.

Part II: Basic Engineering & Sciences (Common to All)

- Applied Mechanics.
- Mechanical Engineering.
- Physics.
- Material Science.
- Civil Engineering.
- Electrical Engineering.
- Computers.
- Chemistry.

Concerned Subjects (Part III)

Civil Engineering:

- Structural Engineering.
- Soil Mechanics and Foundation Engineering.
- Transportation Engineering.
- Water Resources Engineering.
- Environmental Engineering.
- Surveying.

Mechanical Engineering:

- Mechanics.
- The strength of Materials and Design.
- Material Science and Metallurgy.



Syllabus For TANGEDCO – Assistant Engineer (AE)

- Thermodynamics.
- Heat Transfer.
- Production Technology.
- Automotive Engines.

Electrical & Electronics Engineering:

- Electrical Circuits and Fields.
- Power Systems.
- Control Systems.
- Electrical Machines.
- Power Electronics and Drives.
- Digital Electronics.
- Digital Signal Processing.
- Computer Control of Processes, Networks.
- Communication Engineering.

Electronics and Communication Engineering:

- Circuit Analysis.
- Electronic Devices.
- Electronic Circuits.
- Digital Electronics.
- Measurements and Instrumentation.
- Microprocessor and its applications.
- Electromagnetic Fields.
- Transmission Lines and Networks.
- EM waves and waveguides.
- Antennas and Propagation.
- Microwave Engineering.
- Communication Theory and Systems.
- Digital Communication.
- Computer Communication Networks.
- Optical Communication.
- Signals and Systems.
- Digital Signal Processing.
- Control Systems.

Production and Manufacturing:

- Basic Mechanisms and Elements of Design.
- Casting, metal forming and metal joining processes.
- Tool Engineering, Machine tool operation, Metrology, and Inspection.
- Engineering Materials, and Computer Aided Manufacturing.



Syllabus For TANGEDCO – Assistant Engineer (AE)

- Product and Process Design, Design of Jigs and Fixtures and Press Tools.
- Operations Research.
- Operations Management.
- Quality Control Reliability and Maintenance.

Industrial Engineering:

- Probability, Statistics, Engineering Economy, and Costing.
- Work System Design and Ergonomics.
- Operation Research.
- Operations and Supply Chain Management.
- Quality Engineering and Management.

Computer Science & Information Technology:

- Applied Probability And Operations Research.
- Discrete Mathematical Structures.
- Compiler Design.
- Operating Systems And System Software.
- Distributed Systems.
- Programming And Data Structures.
- Algorithm Analysis And Design Techniques.
- Microprocessors And Microcontrollers – Computer Architecture And Organisation.
- Digital Signal Processing.
- Computer Networks.
- Database Management Systems.
- Software Engineering Methodologies.
- Artificial Intelligence.
- Mobile Computing.
- Security In Computing.

Instrumentation Engineering:

- Measurements.
- Analog Electronics.
- Digital Electronics.
- Industrial Instrumentation & Analytical Instrumentation.
- Control Systems and Industrial Data Communication.