

**HP HDS AE Syllabus || Download HP HDS Assistant/Junior Engineer Exam
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HP HDS AE/ JE Exam Pattern

S.no	Subjects	No.of Questions	No.of Marks
1	General Knowledge / Awareness	10 Questions	10 Marks
2	Mental Ability / Reasoning	10 Questions	10 Marks
3	Mathematical Ability	10 Questions	10 Marks
4	Language Proficiency (English)	10 Questions each 20 Questions	20 Marks
5	Professional (As per prescribed qualifications for job-related)	50 questions	50 Marks
Total		100 Questions	100 Marks

HP HDS Syllabus For AE, JE & Other Posts

General Awareness:

- General Politics.
- History of Punjab & India.
- Science & Technology.
- Geography of India & Punjab.
- Current Events – Punjab, National, International.
- Heritage & Culture of India & Punjab.
- Indian Constitution.

- Social Events related to Punjab & India etc.

Aptitude:

- Ratio & Proportion.
- Percentages.
- Square Roots.
- Discount.
- Interest.
- Relationships between numbers.
- Decimals and Fractions
- Averages.
- Time and distance
- Partnership Business.
- Computation of Whole Numbers.
- Profit and Loss.
- Mixture and Alligation.
- Time & Work.

Reasoning:

- Letter and Symbol Series.
- Matching Definitions.
- Statement and Conclusion.
- Theme Detection.
- Logical Deduction.
- Analogies.
- Essential Part.
- Verbal Reasoning.
- Verbal Classification.
- Cause and Effect.
- Artificial Language.
- Logical Problems.
- Making Judgments.
- Number Series.
- Statement and Argument.

Mathematics

- Quadratic Equations
- Sequences and Series

- Trigonometry
- Cartesian System of Rectangular Coordinates
- Statistics
- Differentiation
- Introduction to Three Dimensional Geometry
- Straight Lines
- Circles
- Conic Sections
- Permutations and Combinations
- Vectors
- Exponential and Logarithmic Series
- Sets and Set Theory
- Probability Function
- Limits and Continuity
- Applications of Derivatives
- Indefinite Integrals Binomial Theorem
- Matrices
- Determinants
- Definite Integrals
- Relations and Functions
- Logarithms
- Complex Numbers

English

- Joining Sentences
- Error Correction (Underlined Part)
- Substitution
- Transformation
- Error Correction (Phrase in Bold)
- Fill in the blanks
- Antonyms
- Prepositions
- Sentence Completion
- Spelling Test
- Sentence Improvement
- Para Completion
- Sentence Arrangement
- Spotting Errors
- Passage Completion

- Idioms and Phrases
- Active and Passive Voice
- Synonyms

Assistant Engineering:

- Engineering Mechanics
 1. Kinematics and Kinetics.
 2. Kinetics of the particle.
- Geotechnical Engineering.
- Construction Management.
- Environmental Engineering.
- Sewerage system.
- Transportation Engineering.
- Strength of Materials
 1. Simple stress and strain.
 2. Elastic constants.
- Deflection of beams.
 1. Macaulay's method.
 2. Mohr's moment area method.
- Structural Analysis
 1. Deflection in trusses.
 2. Kani's method and the Matrix method.
- Fluid Mechanics
 1. Dynamics.
 2. Kinematics.
 3. Open Channel Flow.

Mechanical Engineering:

- The design of Machine Elements.
- The Strength of Materials.
- Thermodynamics.
- Vector Calculus.
- Engineering Materials.
- Refrigeration and air-conditioning.
- Engineering Mechanics.
- Joining Processes.
- Fluid Mechanics.

- Tool Engineering.
- Operations.
- Operations Research.
- Metal Casting.
- Differential Equations.
- Probability & Statistics.
- Theory of Machines.
- Turbomachinery.
- Forming Processes.
- Numerical Methods.

Electrical Engineering:

- Electrical Machines.
- Utilization of Electrical Energy.
- Analog and Digital Electronics.
- Estimation and costing.
- Power Electronics & Drives.
- Basic Electronics etc.
- Magnetic Circuit.
- Measurement & measuring instruments.
- AC Fundamentals.
- Network Theory.
- Power Systems.
- Basic Electrical Engineering Concepts.
- Electric heating.
- Resistance Heating.