

**SYLLABUS FOR THE COMPUTER BASED WRITTEN TEST (CBT)**  
**DATED 7<sup>TH</sup> OF APRIL, 2024**

- A. The selection will be based on assessment through Computer Based Written-Test to be held on **Sunday, 7<sup>th</sup> of April, 2024** and personal interview (based on performance in the CBT, candidates will be shortlisted and dates for interview will be announced later).
- B. **The Computer based written test will be held in centres at Delhi, Kolkata, Bangalore & Mumbai** and no change in the test centre will be entertained.
- C. Candidates have to make their own arrangement towards attending the Written test.
- D. Computer based written test consisting of 120 Multiple Choice Questions (consisting of 4 choices which will have once correct answer) @ 1 mark for each correct answer. Negative marks of 0.25 (i.e.  $\frac{1}{4}$ ) marks for every one wrong answer will be deducted. **The duration of the test will be 120 minutes (2 hours).**
- E. The CBT will have three parts. **Part A** : Will consist of **20 questions** in General English. **Part-B**: Will consist of **30 questions** consisting of Numerical Ability & Reasoning Ability. **Part-C**: Will consist of **70 questions** from respective Domain areas.
- F. The minimum cut off marks to be scored in **Part B is 12 marks & Part C is 28 marks** (i.e 40% marks). **There is not cut-off marks to be scored in Part -A, however the** Candidate has to obtain an overall score of minimum of 60% (relaxable by 5% for SC/ST & PwD) to pass the Computer based Test. However, shortlisting for interview will be based on max marks obtained or as decided by BEML Management.
- G. The indicative syllabus for the Computer based test is mentioned below:

CBT - Parts	No of Questions	Indicative Syllabus
Part -A	20	<b>General English:</b> This section tests the candidate's knowledge of English language and grammar. The indicative topics covered would among others include Reading Comprehension, Vocabulary, Grammar, Synonyms and Antonyms, Idioms and Phrases.
Part -B	30	<b>Numerical Ability</b> : This section tests the candidate's quantitative aptitude. The indicative topics covered would among others include Number System, Simplification, Percentage, Ratio and Proportion, Average, Profit and Loss, Simple and Compound Interest, Time and Work, Time, Speed and Distance  <b>Reasoning:</b> This Reasoning section tests the candidate's logical and analytical reasoning skills. The indicative topics covered would among others include Verbal reasoning, Non-verbal reasoning, Analogies, Classification, Series, Coding-Decoding, Blood Relations, Directions, Syllogism.
Part-C Human Resource	70	Principles and Practices of Management, Function of Management, Human Resource Management, New Trends in HRM, Trade Unions, Human Resource Development, Organisational Behaviour, Industrial Relations, Industrial Disputes, Labour Legislation, Wages, Labour Welfare, Social Security.
Part-C Mechanical	70	Engineering Mechanics, Mechanics of Materials, Theory of Machines, Vibrations, Machine Design, Fluid Mechanics & applications, Heat-Transfer & applications, Thermodynamics & applications. Engineering Materials, Manufacturing and Industrial Engineering. Machining and Machine Tool Operations, Metrology and Inspection, Operations Research, Inventory Control.

**Advt No.: KP/S/07/2023**  
**Management Trainee (Grade -II)**



CBT - Parts	No of Questions	Indicative Syllabus
<b>Part-C</b> <b>Electrical</b>	70	Electric circuits , Network Elements, Electromagnetic Fields, Signals and Systems, Electrical Machines, Power Systems, Control Systems, Electrical and Electronic Measurements, Analog and Digital Electronics, Power Electronics
<b>Part-C</b> <b>Metallurgy</b>	70	Engineering Mechanics, Mechanics of Materials Mechanical Behaviour of Materials Engineering Thermodynamics, Manufacturing Practices, Engineering Drawing, Metallurgical Thermodynamics and Kinetics, Metallurgical Practices, Structure of Materials, Extractive Metallurgy, Phase Diagram, Iron Making Technologies, Metallography Techniques, Deformation and Testing of Materials, Phase Transformations, Heat Treatment, Steel Making Technologies, Mechanical Behaviour of Materials, Non-Ferrous Extractive Metallurgy, welding of ferrous & non-ferrous metals, Composite materials, Material selection and design, physical metallurgy, powder metallurgy, corrosion & prevention, Advanced manufacturing process.

The link to download the Admit Card for the Computer based written test will be made available soon.

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