

INDIAN INSTITUTE OF TECHNOLOGY MADRAS, CHENNAI-600036.

Advertisement No. IITM/R/2/2024 dated 02.03.2024

Syllabus & Scheme of Examination

Post: Junior Technician

Stream: Biotechnology

LEVEL-1 Multiple Choice Question Test

(100 Marks)

PART – A

(30 Marks)

1. **Quantitative aptitude:** Number systems, simplification, decimals, fractions, LCM, HCF, ratio & proportion, percentage, log and trigonometric functions, solutions of simple equations (linear and quadratic), basic statistics – mean and standard deviation, profit & loss, discount, simple & compound interest, mensuration, time & work, time & distance, tables & graphs.
2. **Logical reasoning aptitude:** Analogies, similarities, differences, space visualization, analysis, judgment, decision making, visual memory, discrimination, observation, relationship concepts, arithmetical reasoning, verbal and figure classification
3. **Computer-related aptitude:** Hardware, software, operating systems, basic operations in MS Office® - Word, Excel, Powerpoint
4. **Language aptitude:** Comprehension, vocabulary, basic grammar in English.
5. **General awareness aptitude:** Current events, general knowledge, Indian history, Indian constitution, basic geography.

PART – B

(70 Marks)

1. **Principles:** Basic principles in physics (e.g., Newton's laws); basic principles in chemistry (e.g., mole concept, pH concept); basic principles in cell biology, molecular biology, biochemistry, microbiology, genetics, human anatomy, and physiology.
2. **Instrumentation and Techniques:** Basic principles in spectroscopy, chromatography, electrophoresis, and microscopy.
3. **Basic awareness of bioinformatics, culture techniques, bioreactors, and downstream processing.**

LEVEL – 2 Trade Test

- **Trade Test** - Syllabus as above under Part-B for Level-1 Multiple Choice Question Test

Scheme of Examination:

Level	Type of Test	Time	Details	Weightage for the final result
Level -1	Multiple Choice Question Test	Time: 120 Minutes	100 Objective Questions – 100 Marks	70 %
Level-2	Trade Test	Time: 90 minutes approximately	Practical Trade Test	30 %

- A minimum of 5X candidates shall be shortlisted (for X number of posts advertised) for the Level-2 Trade Test, based on their performance in the Level-1 Multiple Choice Question Test.

NOTE:

- a) The medium of examination will be ENGLISH
 - b) The questions will generally be on the minimum qualification level i.e. Graduation.
 - c) There shall be no negative marking for wrong answers.
 - d) **The Level-1 Multiple Choice Question Test is tentatively scheduled to be held on 06th February 2025 at TCS iON Centres in Chennai.**
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