



భారతీయ సాంకేతిక విజ్ఞాన సంస్థ హైదరాబాద్
भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

Advertisement No. IITH/2023/NF/15 dated 22.10.2023.

Post Number	Post Name
15.1	Junior Technician- Academics/Students

Pattern of Examination: Written Test and Skill Test.

Note: Candidates who qualify in written test will be called for Skill Test.

General English [Communication Skills] – 10 marks.

General Arithmetic – 10 marks.

Work related topics – 80 marks.

Syllabus for work related topics:

i) Basic Electrical:

- 1) Definition of Current, Voltage, Resistance, Specific resistance, Power, Energy and their units
- 2) Define Ohm's Law and problems on ohm's law.
- 3) Resistance in parallel and series circuits
- 4) Classification of Resistors, Inductors, Capacitors
- 5) Define AC and DC Power

ii) Basic Electronics:

- 1) Define of Diodes, Transistors
- 2) Define of Transistors
- 3) Resistance in parallel and series circuits
- 4) Classification of Resistors, Inductors, Capacitors

iii) AV Systems:

- 1) Fundamentals of Digital audio and Basics of Digital Sound
- 2) Types of digital audio recordings – difference between analog and digital tape
- 3) Fundamentals of Digital sound for film and home theatre
- 4) Fundamentals of Digital Video Signal, Digital audio with video, Digital video coding and processing.
- 5) Basics of Sound and its parameters, Human Perception and Reaction to sound
- 6) Basics of Environmental Noise & Sound Isolation
- 7) Basics of Data Communication and Networking & Topologies, LAN Components & TCP/IP Protocols,
- 8) Basics of Internet of Things (IOT)
- 9) Basics on PC components, system boards, Processors, Memories and Mass storage devices.
- 10) Basic operational knowledge of Laptop/Projector, digital displays, and interconnects.

(These topics are mentioned for illustrative purpose only)
