



# भारतीय प्रौद्योगिकी संस्थान जोधपुर Indian Institute of Technology Jodhpur

## Syllabus for the post of JUNIOR TECHNICAL ASSISTANT (Center for Advanced Scientific Equipment)

### Written Test

#### **Physics/Chemistry/Materials Science**

1. Electricity and Magnetism
2. Waves and Optics
3. Solid State Physics
4. Basic Electronics
5. Quantum Mechanics
6. Semiconductor device
7. Fundamentals of Organic, Inorganic and Physical chemistry
8. Chemical Bonding and molecular structure
9. Spectroscopy
10. Crystal and microstructures of Materials
11. Properties of materials

### Trade Test

Handling high end equipment such as NMR, AFM, SEM, XRD, SQUID, PPMS, UV-Vis and IR spectrometer, Fluorescence spectrometer, HPLC, TGA and DSC,

Handling experience of Clean Room equipment such as Optical Lithography, LASER, writer, E-beam lithography, Physical vapor deposition systems, Diffusion, oxidation and annealing furnaces, Wire-binder and wafer dicing systems,

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