



Syllabus for the post of JUNIOR TECHNICAL SUPERINTENDENT
(Center for Research & Development of Scientific Instruments (CRDSI))

(A) 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. Introduction to instrumentation
9. Spectroscopy
10. Integrated Circuits technology
11. Properties of materials

(B) SKILL 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,
