



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**  
**Materials Management Division**  
**For IIT GOA**

**X-Ray Diffractometer (XRD) Specification:**

1. X-Ray tube: Standard
2. Anode material/target: Cu
3. Maximum power: 600W (Accelerating voltage - Upto 40kV)
4. Stability: Within  $\pm 0.05\%$  for within  $\pm 10\%$  input power variations
5. Filter: Appropriate Beta filter
6. Stages: Standard
7. Goniometer: Vertical type, Radius - upto 150mm
8. Scanning range:  $-2^\circ$  to  $+140^\circ$  ( $2\theta$ )
9. Scanning speed:  $0.01^\circ/\text{min}$  to  $100^\circ/\text{min}$
10. Minimum step width:  $0.005^\circ$
11. Detector and slits: Appropriate with system
12. Sample holder: Standard
13. External cooling system: standard (if required for the system)
14. Software packages: compatible software for the analyses with offline analysis option
15. Warranty: 36 months from the date of installation
16. Special condition: Test samples should be characterized by the instrument supplier and include the results with the technical bid documents
17. Manufacturer/supplier needs to provide the information of the similar instrument users in India and foreign.