

2006 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

IV B.TECH II SEMESTER SUPPLEMENTARY EXAMINATIONS

**BIO PHYSICS OF MACROMOLECLES
(BIO-TECHNOLOGY)**

APRIL / MAY 2006

TIME: 3 HOUR
MARK: 80

ANSWER ANY FIVE QUESTIONS ALL QUESTIONS CARRY EQUAL MARKS

1. Write short notes
 - (a) Biological macromolecules
 - (b) Strategies in biophysics.
2. Discuss in detail about hydrophobic interactions and water structures.
3. Write short notes on:
 - (a) Ionic interactions
 - (b) Disulphide bonds.
4. Discuss in detail about the tertiary structures of nucleic acids.
5. Discuss in detail about the backbone rotational isomers.
6. Explain catalytic relaxation spectrometry.
7. Discuss in detail about macromolecular diffusion.
8. Write short notes on:
 - (a) X-ray fibre diffraction electron microscopy.
 - (b) Hydrodynamic particles.