

Prof. Brijmohan Mishra Institute of Medical & Technical Sciences

**Class: B.Sc. II year Biotechnology
Paper I: Biophysics and Biochemistry**

ATKT Paper
Max. Marks-

- Attempt all that five Questions. All question carry equal marks.
- Long answer type question 250-300 words.

Q1. Explain laws of Thermodynamics and their applications.

Q2. Write short note on-

(1) Radioactive labeling (2) Autoradiography

Q3. Write Short note on-

(1) Acid (2) Base (3) Salt (4) pH (5) Buffers

Q4. Describe the structure of DNA by Watson and Crick Model.

Q5. Desceibe the concept of Km by Michaelis Menten Equation.

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Paper II: Bioinstrumentation Biostatistics and Bioinformatics

ATKT Paper

Max.Marks-

- Attempt all that five Questions. All question carry equal marks.
- Long answer type question 250-300 words.

Q1. Explain in detail about light microscope and their application with ray diagram.

Q2. Explain principle, working and application of Agrose Gel Electrophoresis.

Q3. Explain principle and types of spectrophotometers.

Q4. Write notes on-

- (1) Statistical data collection
- (2) Probability

Q5. Write note on-

- (1) Sequence databases EMBL and GenBank,
- (2) Input Devices.