

B.N. Bandodkar College of Science, Thane

F.Y.B.Sc. ATKT/FAILURE Examination AUG- 2011

**Subject: Zoology
Paper II**

Duration: 03 hrs

Max Marks: 90

- 1. All questions are compulsory.**
- 2. Figures to right indicate full marks.**
- 3. Draw diagrams wherever necessary**
- 4. Answers to both the sections to be written in the same answer book.**

SECTION - I

Q.1 A) Explain monomer. (03)

Q.1 B) Write short notes on: (Any Three) (12)

- Peptide bond
- Types of amino acids
- Glycosidic bond
- Protein structure
- Biological role of carbohydrates

Q.2 A) Draw flow diagram of preparation of yogurt (03)

Q.2 B) Write short notes on: (Any Three) (12)

- Immobilization of an enzyme
- Process of making beer
- Sterilization techniques
- Scope of biotechnology
- Paper chromatography

Q.3 A) Draw symbols used in pedigree chart. (03)

Q.3 B) Write short notes on: (Any Three) (12)

- Incomplete dominance.
- Haemophilia.
- Monohybrid crosses with suitable example.
- Effect of internal environment on heredity.
- Recessive epistasis.

SECTION - II

Q.4 A) Explain sterols (03)

Q.4 B) Write short notes on: (Any Three) (12)

- Nucleotides
- Clover leaf model of t-RNA
- Types of fatty acids
- Biological role of lipids
- Watson – Crick model of DNA

Q.5 A) Explain cloning. (03)

Q.5 B) Write short notes on: (Any Three) (12)

- Bioremediation

- b) Ethical issues of gene therapy
- c) Transgenic animals
- d) Process for producing human insulin
- e) SCID gene therapy

Q.6 A) Explain unique features of modern man.

(03)

Q.6 B) Write short notes on: (Any Three)

(12)

- a) Miller-Urey's experiment.
- b) Western Ghats as hot spot.
- c) Murchison meteorite.
- d) Mutation a cause of microevolution.
- e) Benefits of biodiversity