

B.N.Bandodkar Science College Thane

T.Y.B.Sc Preliminary examination Feb 2012

Zoology Paper III

Duration: 3Hrs

Total Marks: 100

1. All questions are compulsory.
2. All questions carry equal marks.
3. Illustrate the answers with diagrams wherever necessary.

Q1. Write short notes on (any four):-

- a. Base analogue.
- b. Excision repair mechanism.
- c. DNA database.
- d. Amino acid sequence divergence in proteins.
- e. Food additives as source of toxic compound
- f. Metabolism of carbon tetrachloride.

Q2.Explain (any two):-

- a. Hershey-Chase experiment.
- b. Semi discontinuous replication
- c. Lac-Operon.

Q3.Describe (any two):-

- a. Primary and established mammalian cell lines.
- b. Southern blotting as a tool in DNA fingerprinting
- c. Reverse transcription.

Q4.Discuss (any two):-

- a. Karyotype preparation.
- b. Non disjunction of sex chromosomes.
- c. Human metabolic disease with reference to phenylketonuria.

Q5. Explain (any Two):-

- a. Micotoxins and microbial toxins
- b. Margin of safety and therapeutic index
- c. Neurotoxicity.