

**B.N. Bandodkar College of Science, Thane**  
**Second Semester End Examination March 2012 ®**

**F.Y.B.Sc.**

**USZO202**

**Duration 2 hrs**

**Max Marks-60**

**N.B.** 1) All Questions are compulsory.

2) Figures to right indicate full marks.

**Q.1) A** Answer the following.

- 1) Define unsaturated fatty acids.
- 2) What are nitrogen bases?
- 3) Define lipids.

**B** Write short notes on: (any three)

- 1) Properties of fatty acids
- 2) Watson and Crick model of DNA.
- 3) Sterols
- 4) Nucleotides
- 5) Classification of waxes.

**Q2) A** Answer the following.

- 1) Define cloning.
- 2) What is full form of SCID?
- 3) What are biosensors?

**B** Write short notes on: (any three)

- 1) Production of biogas.
- 2) Procedure for cloning of dolly.
- 3) Applications of bioremediation.
- 4) Ethical issues with reference to gene therapy.
- 5) A flowchart of method for producing a transgenic sheep containing human gene  $\alpha$ -1 antitrypsin.

**Q 3) A** What are the causes of microevolution?

**B** Write short notes on: (any three)

- 1) Primeval earth.
- 2) Biowealth of India
- 3) Competitive Exclusion.
- 4) Biological and cultural evolution of Homo sapiens.
- 5) Murchison meteorite.

**Q.4) A** Answer the following.

- 1) Write the full form of m – RNA.

PTO

- 2) What is full form of CFTR?
- 3) What is endemism?

**B** Write short notes on: (any three)

- 1) Biological roles of lipids.
- 2) Flowchart of method of obtaining transgenic goat with tPA gene in milk.
- 3) Phenomenon of natural selection with example of sickle cell anemia.
- 4) Structure of tRNA.
- 5) Production of Growth hormone.

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