B. N. Bandodkar College of Science, Thane
Semester End Examination 2014-15
Semester II
USZO202

Duration: 2.5hrs
Total marks: 75

N.B.:
1. All questions are compulsory.
2. Figures to the right indicate marks.
3. Draw neat and labeled diagrams wherever necessary.

Q.1 A) Answer the following: (Any 05) (05)
a. What are fatty acids?
b. Define saponification
c. Define waxes
d. Draw the structure of steroid ring system
e. What is mono glyceride?
f. Define nucleoside
g. What is chargaffs rule?
h. What is m-RNA?
i. Write the pyrimidine bases
j. What is z-DNA?

Q.1 B) Write short note on: (Any 03) (15)
a. Saturated fatty acids
b. Properties of fatty acids
c. Sphingolipids
d. Biological role of lipids
e. Nitrogen bases
f. Watson crick model of DNA

Q.2 A) Answer the following: (Any 05) (05)
a. Define transgenic animal
b. Define cloning
c. Define emphysema
d. What is insulin?
e. Define gene augmentation
f. What is cell mediated immunity?
g. Define bioremediation
h. Define biopiles
i. Define bio accumulation
j. Define acromegaly

Q.2 B) Write short note on: (Any 03) (15)
a. Method for producing a transgenic sheep containing human gene alpha a-1 antitrypsin
b. Production of transgenic goat for obtaining TPA
c. Growth hormone
d. Gene therapy
e. Methods for SCID gene therapy
f. Gene therapy for cystic fibrosis

(P.T.O)

Q.3 A) **Answer the following:**

a. The birth of the earth.

OR

a. Unique features of modern man

b. Define self-preservation

OR

b. Define migration

(03)

(02)

Q.3 B) Write short note on:

a. Chemical evolution to biological forms with reference to continuity of life.

OR

a. Benefits of biodiversity.

b. Protobionts models.

OR

b. Natural selection.

(08)

(07)

Q.4 Write short note on: (Any 03)

a. Functions of DNA & RNA

b. r-RNA

c. Gobar gas plant

d. Spilled oil & its impact on the environment

e. Causes of microevolution

f. Aims of biodiversity conservation

(15)