Exam.Code:0905
Sub. Code: 6171

2123

B.E., First Semester

BTBS-X01: Fundamentals of Biotechnology

Time allowed: 3 Hours

Max. Marks: 50

NOTE: *Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.*

x-x-x

I. Answer the following:-

a) How is biomedical waste transported and discarded?

b) Differentiate between spermatogenesis and oogenesis.

c) Name any two endocrine glands.

d) Define Bioremediation.

e) How is chemical evolution different from organic evolution?

f) What are chromosomes and where are they found?

g) Differentiate between skeletal and smooth muscles.

h) Mention any two biosafety measure that you will apply while working in a laboratory.

i) IPR is an acronym for_____.

j) What is the function of liver in digestive system? (10x1)

UNIT - I

II. a) Draw a labeled diagram of eukaryotic cell and mention one function of each organelle.

b) Differentiate between a plant cell and an animal cell. (2x5)

III. a) Discuss various theories of evolution in brief. According to you which theory has a more scientific basis?

b) Describe the Oparin-Haldane hypothesis in detail. How was this tested experimentally? (2x5)

IV. a) Enlist any five applications of biotechnology in food and agriculture.

b) Draw a labeled diagram of mitochondria and mention its functions. (2x5)

P.T.O.

UNIT - II

V. a) Draw a labeled diagram of digestive system and briefly mention function of each part.

b) Name the tissue that covers all the exposed surface of the body and explain its types.

(2x5)

VI. a) Differentiate between GLP and GMP

b) What do you understand by biosafety? How is biosafety applied in laboratories and industries?

(2x5)

VII. Write short notes on any two of the following:-

a) Components of blood

b) Function of endocrine glands

c) Neuron and its structure

(2x5)

x-x-x