Exam.Code:0906
Sub. Code: 6663

1019
B.E. (Biotechnology)
Second Semester
BIO-201: Basic 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. Attempt the following:-

a) A common example of epithelial tissue is_____.

b) _____is a cell that carries electrical impulses.

c) The pH of stomach is 7.2 (T/F).

d) Gonads are a part of _____system.

e) An example of a human cell, which does not have nucleus is_____.

f) Define polymer.

g) Alternative forms of a gene that arise by mutation and are found at the same place on a chromosome are known as_____

h) _____is the practice of safe handling of pathogenic micro-organisms and their toxins in the biological laboratory.

i) GLP stands for good laboratory precautions (T/F).

j) Name one genetically engineered plant that is grown in India. (10x1)

UNIT – I

II. a) The phenomenon of co-dominance is observed when one crosses a red snapdragon flower (RR) with a white snapdragon flower (WW) Explain the inheritance using a monohybrid cross.

b) Draw the structure of neuron and label all the parts. (5,5)

III. Write short notes on any two of the following:-
a) Types of muscular tissue
b) Reproductive system
c) Function of hormones (2x5)

P.T.O.

IV. a) Name all the body parts involved in digestive system and mention the function of each part in brief.

b) Circulatory system is one of the most important systems in the body. Justify this statement in light of the various functions performed by this system. (5,5)

UNIT – II

V. a) Enumerate various types of biopolymers and their application as implant material and in tissue engineering.

b) Mention various tools that are used in genetic engineering and explain importance of each tool. (5,5)

VI. a) There is a urgent need for application of biosafety norms in laboratories and industries in India. Justify this statement in light of recent developments in the field of biotechnology.

b) What is considered as bio-medical waste? How is it treated, transportation and disposed. Explain. (5,5)

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

a) Application of genetic engineering in agriculture and healthcare

b) IPR in biotechnology

c) Types of synthetic polymers (5,5)

x-x-x