

2072

B.E. (Biotechnology) Second Semester
ESBT-201: Basic Bio-Technology

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Answer the following in 3-4 lines:-

- i. What is a synaptic junction?
- ii. What is adipose tissue?
- iii. What is the function of chymotrypsin?
- iv. What is an allele?
- v. What is the function of acetyl choline esterase?
- vi. What is amplicon?
- vii. What is a trademark and its importance?
- viii. What is a HEPA filter device?
- ix. What is a homopolymer? Give a suitable example.
- x. What type of precautions are taken in case of a blood spillage? 10x1

UNIT-I

- IIa. What is an epithelium? Describe its major types and important functions in a human body.
- b. Draw a schematic diagram of a neuron, label its parts and describe their important functions.
- c. What is a connective tissue? Describe its components and functions in a biological system. 4, 3, 3
- IIIa. What is Mendelian inheritance? How laws of inherence were established by Mendel using a plant model?
- b. What is a CNS? Describe its location and important functions.
- c. What is an incomplete dominance? Explain in detail. 4, 4, 2
- IVa. What is peripheral nervous system? Describe its location and important functions.
- b. What is 'Law of segregation? Describe in detail
- c. What an endocrine system? Describe the structure and function(s) of adrenal gland in brief. 4, 3, 3

UNIT-II

- Va. What are synthetic polymers? Give suitable examples and describe their biological applications.
- b. What is a restriction endonuclease? How it is useful in genetic engineering of a bacterial cell?
- c. What is a medical implant? How it is useful in bone tissue repair and regeneration. 4, 3, 3
- VIa. What is a patent? What are major criteria for filing a patent in India?
- b. What is transfection? How it can be achieved in mammalian cells? 4, 4
- c. What is plagiarism? 2
- VII. Write short notes on any two of the following;

i) Biomedical waste management	ii) GMP	iii) Bioethics	5 x 2 = 10
--------------------------------	---------	----------------	------------

x-x-x