

1129

B.Sc. (Hons.) Bio-Informatics

First Semester

BIN-1004: Life Science

Time allowed: 3 Hours

Max. Marks: 60

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) What is the function of lysosomes?
- b) What happens during the S-phase of cell cycle?
- c) State Darwin's theory of evolution.
- d) Name two vestigial organs found in humans.
- e) Differentiate between flagella and Cillia.
- f) What is the function of trypsinogen? (6x2)

UNIT – I

- II. a) Discuss fluid mosaic model of cell membrane.
- b) Name two semi-autonomous cell organelle present in eukaryotes. Why are they so called and what are their functions? (6,6)

- III. a) Differentiate between prokaryote and eukaryote cell.
- b) Give functions / roles of the following hormones:-
- i) Thyroid
 - ii) Epinephrine
 - iii) Insulin (6,6)

- IV. a) Discuss the various stages of mitosis.
- b) Explain the concept of exchange of gases in lungs. (6,6)

UNIT – II

- V. a) Discuss the experiment in support of origin of life.
- b) Write note on beneficial uses and harmful activity of the following:-
- i) Bacteria
 - ii) Fungi (6,6)
- P.T.O.

(2)

- VI. a) Give the classification of algae with suitable examples.
b) Write a note on modern concept of evolution. (6,6)
- VII. a) What are the evidence of evolution?
b) Discuss structure of viruses in detail. (6,6)

x-x-x