

2017

BOTANY

[Honours]

(CBCS)

[First Semester]

PAPER — C2T

Full Marks : 40

Time : 2 hours

Answer all questions

The figures in the right hand margin indicate marks
Candidates are required to give their answers in their
own words as far as practicable

Illustrate the answers wherever necessary

1. Answer any five of the following : 2 x 5

(a) Expand MUFA and PUFA.

(b) Cite the cell cycle check points and state their significance.

(Turn Over)

3. Answer any one question of the following : 10 x 1

(a) Define acidic and basic amino acids with examples. Illustrate the primary, secondary, tertiary and quaternary structures of protein.

(b) Give a brief account of the ultrastructure of nuclear envelope and nuclear lamina.

state its function.

3 + 7

(c) Briefly describe the fluid mosaic model of plasma membrane.

2

(d) Mention the helical parameters of DNA.

3 + 5

(e) Comment on the structural properties of

(c) What are exergonic and endergonic reactions ?

(d) Give an example of disaccharide and a polysaccharide.

(e) Contrast the ionic and covalent bonds.

(f) What is buffer solution ? Give an example.

(g) Define prosthetic groups and cofactors.

(h) State the significance of G_0 phase.

2. Answer any *four* of the following : 5 × 4

(a) Describe the chemical nature of phospho glycerides with examples. 5

(b) Briefly state the chemical structure and function of ATP. 5

(c) Write a note on the classification of enzyme. 5

(d) Explain the facilitated transport and contrast it with the active transport. 3 + 2

(e) Comment on the structural properties of Z DNA. Mention the helical parameters of it. 3 + 2

(f) Briefly describe the fluid mosaic model of plasma membrane. 5

3. Answer any *one* question of the following : 10 × 1

(a) Define acidic and basic amino acids with examples. Illustrate the primary, secondary, tertiary and quaternary structures of protein. 2 + 8

(b) Give a brief account of the ultrastructure of nuclear envelope and nuclear lamina. Describe the nuclear pore complex and state its function. 3 + 7