

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 × 5
- (a) Expand MUFA and PUFA.
- (b) Cite the cell cycle check points and state their significance.

- (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
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