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1 SEM TDC BOTH (CBCS) C 2

2022

(Nov/Dec)

BOTANY

(Core)

Paper : C-2

(Biomolecules and Cell Biology)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Fill in the blanks of the following : $1 \times 5 = 5$

(a) A water molecule has _____ polar covalent bonds.

(b) The _____ bond of ATP is the highest energetic bond.

(c) Prokaryotic ribosomes are of _____S types.

(d) DNA synthesis occurs in synthetic phase of ____.

(e) Phospholipids are ____ in nature.

2. Write short notes on any *three* of the following : 4×3=12

(a) Saponification

(b) Nitrogenous bases

(c) ATP as energy currency

(d) Membrane transport

3. With labelled sketches, describe the structure and functions of ribosomes and lysosomes. 6+6=12

Or

Write short notes on : 4×3=12

(a) Function of chromosome

(b) Fluid mosaic model

(c) Function of chloroplasts

4. What is protein denaturation? Describe the biological roles of proteins. 6+6=12

(3)

Or

Write on the following :

6×2=12

- (a) Role of enzymes
- (b) Cell cycle checkpoints

5. Write short notes on any *three* of the following :

4×3=12

- (a) "Mitochondria is the powerhouse of the cell."
- (b) Function of endoplasmic reticulum
- (c) Composition of carbohydrates
- (d) Endocytosis

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