

1 SEM TDC BOTH (CBCS) C 2

2 0 2 1

(March)

BOTANY

(Core)

Paper : C2

(**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. (a) Fill in the blanks : 1×3=3

(i) Isotope of hydrogen having one neutron and one proton is known as _____.

(ii) Centrosome is absent in _____.

(iii) _____ is the store house of genetic information.

(b) Choose the correct one : 1×2=2

(i) Which is not a disaccharide?

(1) Sucrose

(2) Maltose

(3) Lactose

(4) Amylose

(ii) cpDNA is found in

(1) ribosome

(2) nucleus

(3) chloroplast

(4) mitochondria

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

(a) Nucleic acids

(b) Free energy

(c) Passive transport

(d) Ribosome

3. What are carbohydrates? How are they classified? Write the functions of polysaccharides. 3+5+4=12

(3)

Or

Write short notes on the following : $4 \times 3 = 12$

- (a) Prosthetic groups
- (b) Types of DNA
- (c) Coupled reactions

4. With suitable diagram, describe the structure and functions of Golgi complex.

$3 + 5 + 4 = 12$

Or

Write explanatory notes on the following :

$6 + 6 = 12$

- (a) Cell membrane
- (b) Cell cycle

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

$4 \times 3 = 12$

- (a) Endergonic and exergonic reactions
- (b) Fluid mosaic model
- (c) Role of enzymes
- (d) Cytoskeleton
