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**1 SEM TDC BOTH (CBCS) C 2**

**2019**

( December )

**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. Fill in the blanks :** 1×5=5

(a) The hydrolysis of fat by organisms is called \_\_\_\_\_.

(b) The cells of the multicellular organisms are held together by \_\_\_\_\_.

(c) The process of intake of fluid vesicles by living cells is called \_\_\_\_\_.

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- (d) The two strands of the double helix of DNA are held together by \_\_\_\_\_ bonds.
- (e) Prokaryotic ribosomes are \_\_\_\_\_ S type.

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

- (a) Characteristic features of prokaryotic cell
- (b) ATP as energy currency
- (c) Significance of meiosis
- (d) Properties of water

3. Describe the structures and functions of protein with example. 8+4=12

Or

Write short notes on the following : 4×3=12

- (a) pH and buffer
- (b) Biological properties of lipids
- (c) Ribonucleic acid

4. With suitable diagram, describe the structure and functions of mitochondria. 3+5+4=12

Or

Write short notes on the following :

- (a) Membrane transport 4
- (b) Structure and functions of DNA 6+2=8

5. Write short notes on the following (any three) : 4×3=12

- (a) First law of thermodynamics
- (b) Polysaccharides as reserve food materials
- (c) Redox reactions
- (d) Properties of enzymes

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