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2 SEM TDC ZOOH (CBCS) C 4

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(June/July)

ZOOLOGY

(Core)

Paper : C-4

(**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) Membrane bound organelles are absent
in _____.

(b) Virus that attaches bacteria is called
_____.

(c) Microtubules are hollow unbranched
tubes composed of subunits of protein
_____.

- (d) Nucleoplasm is also known as ____.
- (e) ____ is a multifunctional protein activated during G₁ phase.

2. Distinguish between (any two) : 3×2=6

- (a) Osmosis and Diffusion
- (b) Heterochromatin and Euchromatin
- (c) Viroid and Virus

3. Write short notes on [(a) and (b) or (c) and (d)] : 3×2=6

- (a) Function of lysosomes
- (b) S-phase
- (c) Desmosomes
- (d) Nucleosome

4. Discuss the structure and function of microfilaments. 4+3=7

5. Discuss the structure of mitochondrial particle and respiratory chain. 4+5=9

Or

Give an account of chemiosmotic theory.
Mention the functions of mitochondria. 5+4=9

6. Describe the various stages of mitosis with necessary diagrams. 5+2=7

7. Write about the structure of nuclear envelope and mention two important functions of it. 5+2=7

8. Discuss the role of second messengers. Write briefly about molecular structure of GPCR. 3+3=6
