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**B—150—2019**

**FACULTY OF SCIENCE AND TECHNOLOGY**

**B.Sc. (First Year) (First Semester) EXAMINATION**

**MARCH/APRIL 2019**

**(CBCS/CGPA Pattern)**

**ZOOLOGY**

**Paper II (CCZ-I)**

**(Cell Biology)**

**(MCQ & Theory)**

**(Thursday, 4-4-2019)**

**Time : 10.00 a.m. to 12.00 noon**

*Time—2 Hours*

*Maximum Marks—40*

- N.B. :—*
- (i) Attempt *All* questions.
  - (ii) *All* questions carry equal marks.
  - (iii) Use of separate OMR answer sheet for question no. 1.
  - (iv) *One* mark each for *correctly* answered multiple choice question (MCQ).
  - (v) Negative marking system for wrong answer of MCQ is applicable.
  - (vi) Use of black ball point pen to darken the circle of correct choice of answer of MCQ in OMR answer sheet.
  - (vii) Darken only one circle for the answer of each MCQ.
  - (viii) Illustrate your answers with suitably labelled diagrams wherever necessary for questions 2, 3, 4.

**MCQ**

1. Mark the option for *correct* answer of each of the following MCQs in OMR answer sheet : 10

- (i) The image formed in electron microscope in the form of .....
  - (a) Ring or spot
  - (b) Lines
  - (c) Light
  - (d) Dots

P.T.O.

- (ii) Trilaminar model of plasma membrane was proposed by .....
- |                         |                        |
|-------------------------|------------------------|
| (a) Singer and Nicolson | (b) Hiller and Hoffman |
| (c) Robertson           | (d) Wolper             |
- (iii) The name endoplasmic reticulum was coined by .....
- |            |                  |
|------------|------------------|
| (a) Benda  | (b) Porter       |
| (c) Wolper | (d) Robert Brown |
- (iv) The term "Mitochondria" was introduced by :
- |              |             |
|--------------|-------------|
| (a) Kollikar | (b) Fleming |
| (c) Fontana  | (d) Benda   |
- (v) Lysosomes were discovered by :
- |                |              |
|----------------|--------------|
| (a) J. Rhodin  | (b) Fontana  |
| (c) C. De Duve | (d) Waldeyer |
- (vi) The term chromosome was coined by :
- |                |                 |
|----------------|-----------------|
| (a) Waldeyer   | (b) Karl Nageli |
| (c) Hofmeister | (d) Walter      |
- (vii) Blood cancer is also known as :
- |               |               |
|---------------|---------------|
| (a) Sarcoma   | (b) Carcinoma |
| (c) Leukemias | (d) Melanomas |
- (viii) Replication of DNA takes place in ..... phase of cell cycle.
- |                    |                    |
|--------------------|--------------------|
| (a) S              | (b) M              |
| (c) G <sub>1</sub> | (d) G <sub>2</sub> |
- (ix) Golgi complex is also known as :
- |              |                  |
|--------------|------------------|
| (a) Bioblast | (b) Lipochondria |
| (c) Vacuoles | (d) Sarcosomes   |

- (x) Micellar modes of plasma membrane was proposed by :
- (a) Hiller and Hoffman                      (b) Robertson
- (c) Singer and Nicolson                      (d) Garter and Grendel

### Theory

2. Explain in detail fluid mosaic model of plasma membrane. Add a note on its functions. 10

*Or*

Write notes on :

- (a) Light Microscope
- (b) Significance of Mitosis.

3. Describe in detail structure and functions of mitochondria. 10

*Or*

Write notes on :

- (a) 70S ribosome
- (b) Malignant tumour.

4. Explain structure and functions of Nucleus. 10

*Or*

Write notes on :

- (a) Polytene chromosome
- (b) Metaphase in mitosis.