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R—118—2017

FACULTY OF SCIENCE

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

MARCH/APRIL, 2017

(CBCS/CGPA Pattern)

ZOOLOGY

Paper II

(Cell Biology)

(MCQ+Theory)

(Monday, 10-4-2017)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt All questions.

(ii) Use separate answer-sheet (OMR) for Question No. 1.

(iii) One mark to each correct answer of MCQ.

(iv) Negative marking system for wrong answer is applicable.

(v) Use black ball point pen to darken the circle of correct choice in OMR answer-sheet.

(vi) Draw well labelled diagrams, wherever necessary for Question Nos. 2, 3 and 4.

(MCQ)

1. Choose the correct answer : 10

(i) model of plasma membrane was proposed by Danielli and Davson.

(a) Fluid mosaic (b) Unit-membrane

(c) Sandwich (d) Lattice

(ii) The prokaryotic cells are characterised by

(a) A distinct nucleus

(b) A distinct chromosome

(c) Absence of chromate in network

(d) Absence of nuclear membrane

P.T.O.

- (iii) The term cell membrane was coined by
- (a) J.Q. Plowe
 - (b) Robertson
 - (c) C. Nageli and C. Cramer
 - (d) Danielli and Davson
- (iv) What is the energy currency of a cell ?
- (a) DNA
 - (b) RNA
 - (c) Vitamin
 - (d) ATP
- (v) Ribosomes are the site of
- (a) Photosynthesis
 - (b) Protein synthesis
 - (c) Lipid synthesis
 - (d) Steroid synthesis
- (vi) Which of the following is called 'suicidal bag' of the cell ?
- (a) Lysosomes
 - (b) Mitochondria
 - (c) Golgi complex
 - (d) Endoplasmic reticulum
- (vii) Centromere is a part of
- (a) Ribosome
 - (b) Chromosome
 - (c) Mitochondria
 - (d) Endoplasmic reticulum
- (viii) Nucleus has
- (a) Non-porous single membrane
 - (b) Non-porous double membrane
 - (c) Porous double membrane
 - (d) None of the above
- (ix) In meiosis, crossing over takes place in
- (a) Zygotene
 - (b) Pachytene
 - (c) Diplotene
 - (d) Leptotene
- (x) The nuclear membrane disappears during
- (a) cell division
 - (b) metabolism
 - (c) cell fusion
 - (d) resting

WT

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(Theory)

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

Or

Write notes on :

- (a) Light microscopy
- (b) Telophase of mitosis.

3. Explain in detail structure and functions of endoplasmic reticulum. 10

Or

Write notes on :

- (a) 80 S ribosomes
- (b) Metaphase of meiosis-II.

4. Describe in detail structure and functions of chromosome. 10

Or

Write notes on :

- (a) Nucleolus
- (b) Pachytene in meiosis.

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