Avinashilingam Institute for Home Science and Higher Education for Women,
Coimbatore – 641043
Bachelor's Degree Examination – November 2017
III Semester

Class : II UG **Time : 3hrs**
Major : Zoology **Max. Marks : 100**

15BZOC07 Cell Biology

Part – A **10X1=10**

Choose the correct answer

1. A homogenous ground substance of cytoplasm is known as
   a. Endoplasm b. Ectoplasm c. Nucleoplasm d. Hyaloplasm

2. An example for compound fixative is
   a. Picric acid b. Chromic acid c. Acetic acid d. Carnoy's fluid

3. Thickened areas of plasma membrane of two adjacent cell is
   a. Microvilli b. Desmosomes c. Gap junction d. Tight junction

4. Engulfing of solid particles through the plasmamembrane is
   a. Pinocytosis b. Phagocytosis c. Exocytosis d. Emeiocytosis

5. Complete oxidation of one glucose molecule yields – ATP
   a. 32 b. 34 c. 36 d. 38

6. Protein factories of the cell are
   a. Ribosome b. Lysosome c. Mesosome d. Glyoxysome

7. Protamines are ---------- proteins
   a. Nuclear b. Cytoplasmic c. Chromosomal d. Lysosomal

8. Darkly stained condensed regions of chromosomes are called ----------
   a. Heterochromatin b. Euchromatin c. Centromere d. Chromatid

9. Immunological theory of origin of cancer was proposed by
   a. Hansmann b. Haddow c. Green d. Wasburg

10. Fibroma is a type of cancer arise on
    a. Fibrous tissue b. Connective tissue c. Nerve tissue d. Epithelial tissue

Part – B **5X6 =30**

Answer the following

Answer should not exceed 400 words or two pages

11. a. Write a brief account on cell theory.
    Or
    b. Describe the structure of an eukaryotic cell.
12. a. Explain the "Fluid -Mosaic model" of plasmamembrane.
    Or
    b. Examine the chemistry of plasmamembrane.
13. a. Elucidate the Ultra structure of mitochondria.
    Or
    b. Illustrate the polymorphisms that exist in Lysosome.

14. a. Emphasis the structure of Nucleolus.

Or

b. Write a brief account on polytene chromosome.

15. a. Enlist the properties of cancerous cell.

Or

b. Explain the types of cancer.

Part – C **5X12 =60**

Answer the following

Answer should not exceed 800 words or 4 pages

16. a. Describe the principle and working mechanism of SEM.

Or

b. Discuss the structure and working principle of centrifuge.

17. a. Write a detailed account on the functions of plasmamembrane.

Or

b. Elucidate the specialised structures of plasmamembrane.

18. a. Illustrate the Embden – Meyor hoff - pathway.

Or

b. Describe the structure and functions of ribosome.

19. a. Discuss the ultra – structure of Interphase nucleus.

Or

b. Write a detailed account on Lampbrush chromosome.

20. a. Examine the theories which explain the origin of cancer.

Or

b. Analyse the causes of cancer.

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