K20U 1560

Reg. No. : .....

Name : .....

V Semester B.Sc. Degree (CBCSS-Reg./Sup./Imp.) Examination, November 2020
(2014 Admn. Onwards)
CORE COURSE IN ZOOLOGY
5B07ZLG : Cell Biology and Immunology

Time : 3 Hours Max. Marks : 40

PART – A

I. Answer **any one** of the following. **(1×8=8)**

1) Explain the Fluid mosaic model for the structure of Plasma membrane.
2) With the help of diagrams, explain the process of meiosis.

II. Answer **any one** of the following. **(1×8=8)**

3) Explain the functional variants of lysosomes and their function.
4) Explain the molecular organization of nucleosome, mention euchromatin and heterochromatin.

III. Answer **any two** of the following. **(2×3=6)**

5) Describe the different staining methods used in electron microscopy.
6) Compare the chemical composition and structure of Prokaryotic and eukaryotic ribosomes.
7) What are oncogenes ? Mention its role in cancer formation.
8) Differentiate between prokaryotic and eukaryotic chromosomes.

IV. Answer **any six** of the following. **(6×1=6)**

9) Balbiani rings.
10) Gap junctions.
11) Carnoy's fluid.
12) Microtubules.
13) Carcinogens
14) Chiasmata
15) Endomitosis.
16) Electron transport chain.

P.T.O.

V. Answer **all** the following. **(4×1=4)**

17) a) Which of the following is not present in 80S ribosomes ?

a) 28S rRNA b) 23S rRNA

c) 5S rRNA d) 5.8S rRNA

b) The histone, that is not the component of core particle.

a) H2A b) H2B

c) H1 d) H3

c) Pairing of homologous chromosomes takes place during

a) Leptonema b) Zygonema

c) Diplonema d) Diakinesis

d) The secretory centre of the cell is

a) Mitochondria b) Lysosomes

c) Golgi bodies d) Ribosomes.

PART – B

Immunology

VI. Answer **any two** of the following. **(2×2=4)**

18) Allergy

19) Graft rejection.

20) Acquired immunity

21) Rheumatic fever

VII. Answer **any one** of the following. **(1×4=4)**

22) What is antigen-antibody interaction ? Describe the different types of interaction.

23) What is Major Histo-compatability Complex ? Explain.