



K24U 0088

Reg. No. :

Name :

Sixth Semester B.Sc. Degree (C.B.C.S.S.-OBE – Regular/Supplementary/
Improvement) Examination, April 2024
(2019 to 2021 Admissions)
CORE COURSE IN ZOOLOGY
6B09 ZLG : Cell Biology, Immunology and Microbiology

Time : 3 Hours

Max. Marks : 40

Instruction : Give illustrations and figures wherever necessary.

- I. **Essay questions. Each question carries 8 marks. Answer any two. (2×8=16)**
- 1) Describe fluid mosaic model of plasma membrane. Add notes on the functions of plasma membrane.
 - 2) Briefly describe the structure of a typical antibody. Comment on different types of antigen-antibody reactions.
 - 3) Give an account of various types of sterilization techniques employed in a Microbiology Laboratory.
 - 4) Describe the structure of an interphase nucleus.
- II. **Short essay. Each question carries 4 marks. Answer any two. (2×4=8)**
- 5) What is the cell cycle ? Write notes on various stages involved in cell cycle.
 - 6) With the help of a neatly labeled diagram, explain the structure of a typical bacterial cell.
 - 7) Give an account of different types of immunity.
- III. **Short answer questions. Each question carries 2 marks. Answer any six. (2×6=12)**
- 8) What is metastasis ?
 - 9) What is autoimmunity ? Give two examples.

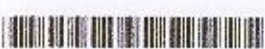
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- 10) What are fixatives ? Name any two commonly used fixatives.
 - 11) Compare and contrast mitosis and meiosis.
 - 12) What are nucleosomes ?
 - 13) What are vital stains ? Give an example.
 - 14) Distinguish between viroids and prions.
 - 15) Write any two bacterial diseases and name its causative.
- IV. **Multiple choice questions. Each question carries 0.5 marks. Answer all. (8×0.5=4)**
- 16) Oxidative phosphorylation takes place in
 - a) Ribosome
 - b) Endoplasmic reticulum
 - c) Cytoplasm
 - d) Mitochondria
 - 17) Lysosomes are formed from _____
 - a) Mitochondria
 - b) Ribosome
 - c) Golgibody
 - d) Endoplasmic reticulum
 - 18) Major immunoglobulin found in human colostrum and milk.
 - a) IgA
 - b) IgG
 - c) IgM
 - d) IgE
 - 19) The duplication of chromosomes without the division of nucleus is called as
 - a) Amitosis
 - b) Endomitosis
 - c) Plasmotomy
 - d) Karyogamy
 - 20) A small molecule that, when combined with a larger carrier molecule, can elicit an immune response, leading to the formation of antibodies.
 - a) Adjuvant
 - b) Hapten
 - c) Epitope
 - d) CDRs



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- 21) Which type of hypersensitivity reaction is characterized by an immediate and IgE mediated immune response ?
 - a) Type I
 - b) Type II
 - c) Type III
 - d) Type IV
- 22) The chromosome with its centromere slightly shifted towards one end and located close to the centre.
 - a) Metacentric
 - b) Acrocentric
 - c) Submetacentric
 - d) Telocentric
- 23) Protein coat of virus is called as
 - a) Plasmid
 - b) Capsid
 - c) Viroid
 - d) Capsule