

**B.Sc.**

**ZOOLOGY**

**I Semester End Examination March/April 2022**

**CYTOLOGY GENETICS AND INFECTIOUS DISEASES**

**Course Code: ZOO1DSC01**

**QP Code: 1017**

**Time: 2 hours**

**Total Marks: 60**

**Instructions to Candidates:**

1. Draw neat labeled diagrams wherever necessary.
2. Answers should be completely in English.

**PART-A**

**I. Answer the following in one word or one sentence (5x1=5)**

1. Mention the types of Endoplasmic reticulum.
2. Name the fundamental structural sub-unit of chromatin.
3. Which term was used by Mendel for 'Genes'?
4. Name the genes that govern Cytoplasmic inheritance.
5. Give the Pedigree symbol for non- identical twins.

**PART-B**

**II. Answer any five of the following (5x3=15)**

1. Differentiate between endocytosis and exocytosis.
2. What are Peroxisomes? Mention any of its two functions.
3. Draw a neat labeled diagram of ultrastructure of Mitochondrion.
4. What is a Cell cycle? Mention its phases.
5. Write short notes on Freemartins.
6. Mention the type of antigens and antibodies present in ABO Blood system of

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Humans.

7. List the symptoms and control measures of *SARS Covid-2*.

**PART-C**

**III. Answer any four of the following**

**(4x5=20)**

1. Draw a neat labeled diagram of Fluid mosaic model of Plasma membrane.
2. Explain the Watson and Crick model of DNA.
3. Describe the paracrine and autocrine cell signaling.
4. Explain the chromosomal sex determination for the following:
  - a) XX-XY type
  - b) ZW-ZZ type
5. With suitable example describe the X-linked recessive pattern of inheritance.
6. Give an account on the disease caused and symptoms of *Trichomonas vaginalis*.

**PART-D**

**IV. Answer any two of the following**

**(2x10=20)**

1. Describe:
  - a) Structure of Ribosomes.
  - b) Process of Oxidative Phosphorylation.
2. Explain the process of Prophase I of Meiosis with neat labeled diagrams.
3. What is polygenic inheritance? Explain it with an example.
4. Give an account on Cri-du- chat's and Down's syndromes.

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