

CONFIDENTIAL

DCZO101

Reg. No.

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I Semester B.Sc. Degree Examination, May/June - 2022

ZOOLOGY

Cytology Genetics and Infectious Diseases

(NEP Scheme 2021-22)

Paper : I

Time : 2½ Hours

Maximum Marks : 60

Instructions to Candidates:

1. Draw neat labelled diagrams wherever necessary
2. Answer should be completely in English.

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Bangalore - 560 011

PART - A

I. Answer the following.

(5×1=5)

1. Define Exocytosis.
2. Mention the nitrogen base present only in DNA.
3. Write the phenotypic ratio of Mendel's dihybrid cross.
4. What are multiple alleles?
5. Name the causative agent of sleeping sickness.

PART - B

II. Answer any Five of the following.

(5×3=15)

1. Mention the cytoskeletal elements of animal cell.
2. List any three functions of endoplasmic reticulum.
3. Describe the structure of peroxisome.
4. Mention the types of RNA present in a cell.
5. Write a note on sex influenced characteristics.

[P.T.O.]

6. Write a note on hypertrichosis.
7. Define :
 - a. Karyotype.
 - b. Pedigree.
 - c. Translocation.

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PART - C

III. Answer any Four of the following.

(4×5=20)

1. Describe the structure of mitochondrion with a diagram.
2. Explain metaphase with a neat labelled diagram.
3. Explain signal transduction with reference to G-protein linked receptors.
4. Explain Mendel's monohybrid cross with a suitable example.
5. Describe autosomal dominant pattern of inheritance with an example.
6. Give the diagrammatic representation of life cycle of Giardia.

PART - D

IV. Answer any Two of the following.

(2×10=20)

1. Explain :
 - a. Fluid mosaic model of plasma membrane.
 - b. Structure of Ribosome.
2. Describe the structure of Eukaryotic chromosome with a neat labelled diagram. Mention its types.
3. Define Gene Interaction. Explain the inheritance of comb pattern in fowls.
4. a. What is numerical chromosomal aberration? Explain it with a suitable example.
 - b. Give the occurrence, disease caused, mode of transmission and symptoms of Wuchereria.