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B.M.S COLLEGE FOR WOMEN AUTONOMOUS

BENGALURU – 560004

SEMESTER END EXAMINATION – JANUARY/FEBRUARY 2023

B.Sc. Zoology I SEMESTER

CYTOLOGY GENETICS AND INFECTIOUS DISEASES

(NEP Scheme 2021-22 onwards F+R)

Course Code: ZOO1DSC01 **QP Code: 1017**

Duration: 2 ½ Hours **Max. Marks: 60**

Instructions to Candidates:

1.Draw neat labelled diagram wherever necessary.

2.Answer should be completely in English.

PART A

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

1. Define exocytosis
2. Mention the nitrogen base present only in RNA
3. Write the genotypic ratio of Mendel's monohybrid cross
4. What is polygenic inheritance?
5. Expand SARS COVID -2.

PART B

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

1. Define protein targeting. Mention any two types.
2. Draw a neat labelled diagram of mitochondrion
3. List any three functions of peroxisomes.
4. Mention any three types of RNA with one function each.
5. Write a note on sex limited characteristics.
6. What is maternal inheritance? Give an example.
7. Define
    a. Karyotype
    b. Pedigree analysis

PART C

III. Answer any FOUR of the following **(4x5=20)**

1.Write any five functions of endoplasmic reticulum.

2.With schematic diagram explain cell cycle.

3.Differentiate between autocrine and paracrine signaling

4.With an example explain incomplete dominance

5.Explain autosomal recessive inheritance with an example

6.Write a note on:

a. Klinfelter syndrome

b. Cry-do-chat syndrome

PART D

IV. Answer any TWO of the following **(2x10=20)**

1. Explain:

a. Fluid mosaic model of plasma membrane

b. Structure of ribosomes.

2. Describe the structure of eukaryotic nucleus with neat labelled diagram

3. Define gene interaction? Explain the inheritance of comb pattern in fowl.

4. Explain the lifecycle, disease caused, symptoms and control of *Trichomonas vaginalis*.

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