QP Code:D133298	Total Pages:1	Name:
		Register No.

FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2025

(CUFYUGP)

ZOO1MN102 Basics in Cellular physiology

2024 Admission onwards

Maximum Time: 2 Hours | **Maximum Marks: 70**

Section A

All Questions can be answered. Each Question carries 3 marks (Ceiling : 24 Marks)

1	What is the significance of checkpoints in the cell cycle?
2	Define differentiation. Provide any one example.
3	What are the key events that occur during the G1 and G2 phases of the cell cycle?
4	Differentiate between leading and lagging strand.
5	What is the difference between introns and exons?
6	Define pleiotropy. Provide any one example
7	What are sex-linked chromosomes?
8	Briefly describe point mutation.
9	What is the genetic basis of Albinism?
10	Define the terms homozygous and heterozygous.

Section B

All Questions can be answered. Each Question carries 6 marks (Ceiling : 36 Marks)

11	Describe the structure and function of the Golgi bodies.
12	Explain the stages of mitosis and why it is referred to as equational division.
13	Categorize chromosomes according to their morphological characteristics.
14	Explain the concept of gene mutations and their classification.
15	Summarize any two non-mendelian inheritance patterns.
16	Explain the concept of a dihybrid cross. Provide one example.
17	Discuss spatial and temporal control of gene activity.
18	Enlist the major functions of mitochondria.

Section C

Answer any ONE. Each Question carries 10 marks (1x10=10 Marks)

19	Discuss the various types of gene mutations and explain their significance in genetics.
20	Analyze the major autosomal and sex chromosomal anomalies.