

2024

ZOOLOGY

ZOOL-3014

(Cell Biology)

Total Marks : 40

Time : 2 Hours

Total number of printed pages -2

The figures in the margin indicate full marks for the questions

1. Answer the following questions very briefly : 2×5=10
 - (a) Name the proteins found in cytoskeleton.
 - (b) How the cell is protected from destructive effects of lysosomal enzymes?
 - (c) What happens in G1 of interphase?
 - (d) What is the full form of caspases? Define initiator caspase and executioner caspase?
 - (e) Distinguish between apoptosis and necrosis.

2. Answer any six of the following questions. 5×6=30
 - (a) Elaborate the role of mitotic apparatus in chromosome movement and cell division. 5
 - (b) What is Chaperon? Discuss the mechanism of protein import to inner mitochondrial membrane. 1+4=5
 - (c) Describe the molecular mechanism of caspase dependent extrinsic pathway. 5

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- (d) Discuss the structure and function of Endoplasmic reticulum. 3+1=4
- (e) Write a note on biogenesis of mitochondria with supportive diagram. 5
- (f) Discuss the transcriptional regulation of gene expression in eukaryotes? 5
- (g) Write short notes on: $2 \frac{1}{2} \times 2 = 5$
- (i) Cartwheel structure.
 - (ii) Functions of peroxisomes.

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