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UG/2nd Sem/ZOO/H/19

2019

B.Sc. (Hons.)

2nd Semester Examination

ZOOLOGY

Paper—C4T

Cell Biology



Full Marks : 40

Time : 2 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

1. Answer any *five* questions from the following :

5×2=10

- (a) Mention the location and function of Ribophorine.
- (b) What is G protein ?
- (c) State the role of protein phosphatase in cell signaling.
- (d) Mention the location and function of F₁ particle.
- (e) What is prion ?

[Turn Over]

(2)

(f) What is a desmosome junction ?

(g) Mention the differences between heterochromatin and euchromatin.

(h) What is retinoblastoma ?

2. Answer any *four* questions : $4 \times 5 = 20$

(a) Describe the structure and functions of peroxisomes.

(b) Discuss the process of N-linked and O-linked glycosylation.

(c) Briefly state the outline structure of microtubules.

(d) Give a comparative features of different types of cell junction.

(e) What is the signal transduction pathway ?
Mention the stages of cell signalling. $3+2$

(f) Distinguish between :

(i) Histone and Nonhistone proteins.

(ii) Apoptosis and Necrosis.

(3)

3. Answer one question from the following : 1×10

(a) (i) Discuss the role of various check points in cell cycle to maintain a regulated cell-division.

(ii) Mention the function of P⁵³.

(b) (i) Describe the process active transport across the plasma membrane. How does it differ from passive transport.

(ii) Write a note on cell junction. $(4+2)+4$
