Total No. of Questions : 8]

SEAT No. : ____

P2083

[Total No. of Pages : 2

[4929]-22

M.Sc. (Semester - II)

ZOOLOGY

ZY-202: a) Molecular Biology
b) Cell Biology

(2008 Pattern)

Time : 3 Hours] ***[Max. Marks : 80***

Instructions to the candidates:

1) ***Answer any two questions from each section.***
2) ***Answers to the two sections should be written in separate answer books.***
3) ***Figures to the right indicate full marks.***
4) ***Neat diagrams must be drawn wherever necessary.***

SECTION - I

ZY-202: a) Molecular Biology

Q1) a) Discuss the features of DNA structure proposed by Watson and Crick. **[10]**

b) What is Central dogma of molecular biology? Explain. **[10]**

Q2) Describe in detail the process of replication in prokaryotic cell. Give the role of different proteins involved in it. **[20]**

Q3) a) Differentiate between the RNA Polymerase I, II and III. Discuss the mechanism of RNA Polymerase II in transcription process. **[10]**

b) What is translocation? Describe it in detail. **[10]**

Q4) Write short notes on : **[20]**

a) DNA Polymerase III

b) Post-transcriptional Modification

c) Transposons

d) Initiation factors involved in protein synthesis.

P.T.O.

SECTION - II

ZY-202: b) Cell Biology

Q5) Explain the chemistry and molecular structure of plasma membrane. Add a note on active transport. **[20]**

Q6) Describe the role of cytoskeleton in cell architecture and cell motility. **[20]**

Q7) a) Explain polymorphism in lysosomes. **[10]**

b) Explain functions of peroxisomes. **[10]**

Q8) Write short notes on : **[20]**

a) Protein import in chloroplasts

b) Significance of prophase I of Meiosis I

c) Glyoxysomes

d) Nucleo cytoplasmic interaction

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