

Final Year B.Sc. Degree Examination, November 2008
Directorate of Distance Education Course
ZOOLOGY

Paper – III : Cell Biology, Genetics, Evolution, Apiculture and Sericulture

Time : 3 Hours

Max. Marks : 75

- Instructions :* 1) Simple questions should be answered in the first two pages of the answer book.
2) Draw labelled diagram wherever necessary.
3) All questions are compulsory.

I. Simple questions :

(10×1=10)

Answer in a word, or a phrase or a sentence :

- 1) What is oogenesis ?
- 2) What is carcinogen ?
- 3) What is polyspermy ?
- 4) Define cell cycle.
- 5) Define lethal gene.
- 6) Define penetrance.
- 7) What is genetic drift ?
- 8) Name any two species of honey bees.
- 9) What is sericulture ?
- 10) What is Moulting ?

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II. Short answer questions :

Answer any FIVE of the following :

(5×3=15)

- 11) Describe three characteristic features of cancer cell.
- 12) Briefly explain gametogenesis.
- 13) Define acquired immunity.
- 14) Explain briefly over production.
- 15) Define Homeostasis.
- 16) Describe the sting apparatus of honey bee.
- 17) Write a note on bacterial diseases of silkworm.

P.T.O.



III. Medium answer questions :

Answer any FIVE of the following :

(5×6=30)

- 18) Briefly explain antigen-antibody reaction.
- 19) Describe the structure of mammalian sperm with a neat labelled diagram.
- 20) Write a note on Klienofelter and Turner's syndrome.
- 21) State and explain Hardy-Weinberg principles.
- 22) Explain the role of Isolation Mechanism in the evolution of a species.
- 23) Briefly describe the social organisation of honey bees.
- 24) Write a note on Human Twins.

IV. Long answer questions :

Answer any TWO of the following :

(2×10=20)

- 25) What is Tertilization? Explain briefly the process of fertilization.
- 26) Briefly explain Neo-Darwinism.
- 27) Describe CLB technique of detection of mutations.
- 28) Briefly describe the life cycle of *Bombyn mori*.

