

Final Year B.Sc., Degree Examinations

December 2017

(Directorate of Distance Education)

ZOOLOGY

DSC310: Paper III : Cell Biology, Genetics, Evolution, Apiculture and Sericulture

Time: 3 hrs.]

[Max.Marks:75/85

Instruction to the Candidates :

- 1. Students who have attended 25 Marks IA scheme will have to answer for total of 75 marks.*
- 2. Students who have attended 15 Marks IA scheme will have to answer for total of 85 marks.*
- 3. One mark questions should be answered in first two pages of the answer book.*
- 4. Draw neat diagram wherever necessary.*
- 5. All questions are compulsory.*
- 6. Q.No. V is compulsory for 85 marks scheme.*

I. *Simple answer questions :*

10 X 1= 10 Marks

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

- 1. What is Autoradiography ?*
- 2. Define cancer.*
- 3. What is immunity ?*
- 4. What is Gametogenesis ?*
- 5. Define Sericulture.*
- 6. Define fertilization.*
- 7. Who proposed the mutation theory?*
- 8. Define Evolution.*
- 9. Define Homeostasis.*
- 10. Name any one species of Honey bees.*

II. *Short answer questions :*

Answer any FIVE of the following.

5X 3= 15 Marks

- 11. Write a note on vaccination.*

Contd...2

12. Write the significance of parthenogenesis.
13. Explain the metastasis.
14. Describe the Turner's syndrome.
15. Mention the principles of Lamarckism.
16. Mention the non mulberry silkworm.
17. Explain the economic importance of Honey.

III. *Medium answer questions :*

Answer any FIVE of the following.

5X6= 30 Marks

18. Explain both Allopatric and sympatric speciation.
19. Explain the process of Spermatogenesis.
20. Explain different types of cancer.
21. Describe the structure of Graafian follicle with a neat labeled diagram.
22. Describe the embryonic evidences for organic evolution.
23. Explain the larvae of *Bombyx mori*.
24. Describe the mouth parts of Honey bee.

IV. *Long answer questions :*

2X10=20 Marks

Answer any TWO of the following.

25. Explain the Albino series of coat colour in Rabbits
26. Explain the Hardy Weinberg law of genetic equilibrium.
27. Describe the structure Immunoglobulin Ig.
28. Write a note on silk worm diseases.

V. *Compulsory question for 85 marks scheme only. Long answer questions.*

Answer any ONE of the following.

1X10=10 Marks

29. Explain the process of fertilization and mention their significance.
30. Summarize the evolutionary trends of Horse Evolution.
