B.Sc IIIrd YEAR ZOOLOGY

PAPER – III

ANIMAL PHYSIOLOGY, GENETICS & EVOLUTION

MODEL QUESTION PAPER

Time : 3 Hrs) (Max Marks : 100

SECTION-I

(Long Answer Questions)

4 x 12 = 48

Answer any **four** questions choosing two from Sub section A, One from Sub section-B and one from Sub section-C

Draw diagrams wherever necessary

Sub section – A

(Animal Physiology)

1. From Unit-I of the Syllabus.
2. From Unit-I of the Syllabus.
3. From Unit-II of the Syllabus.
4. From Unit-II of the Syllabus.

Sub section – B

(Genetics)

5. From Unit-III of the Syllabus.
6. From Unit-III of the Syllabus.

Sub section – C

(Organic Evolution)

7. From Unit-III of the Syllabus.
8. From Unit-III of the Syllabus.

SECTION-II

(Short Answer Questions)

Marks : 6 x 6 = 36

Answer any **six** questions choosing two from each Sub-section

Draw diagrams wherever necessary

Sub section – A

9. From Unit-I of the Syllabus.
10. From Unit-I of the Syllabus.
11. From Unit-I of the Syllabus.

Sub section – B

12. From Unit-II of the Syllabus.
13. From Unit-II of the Syllabus.
14. From Unit-II of the Syllabus.

Sub section – C

15. From Unit-III of the Syllabus.
16. From Unit-III of the Syllabus.
17. From Unit-III of the Syllabus.

SECTION – III

(Very Short Questions) Marks : 2 x 8 = 16

Answer any **eight** questions

18. From Unit-I of the Syllabus.
19. From Unit-I of the Syllabus.
20. From Unit-I of the Syllabus.
21. From Unit-I of the Syllabus.

22. From Unit-II of the Syllabus.
23. From Unit-II of the Syllabus.
24. From Unit-II of the Syllabus.
25. From Unit-II of the Syllabus.

26. From Unit-III of the Syllabus.
27. From Unit-III of the Syllabus.
28. From Unit-III of the Syllabus.
29. From Unit-III of the Syllabus.

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PAPER – III

ANIMAL PHYSIOLOGY, GENETICS & EVOLUTION

MODEL QUESTION PAPER

Time : 3 Hrs) (Max Marks : 100

SECTION-I

(Long Answer Questions)

4 x 12 = 48

Answer any **four** questions choosing two from Sub section A, One from Sub section-B and one from Sub section-C

Draw diagrams wherever necessary

Sub section – A

(Animal Physiology)

1. Give an account of digestion, absorption and assimilation of digested food materials.
2. Define cellular respiration and give an account of mechanism of kreb's cycle.
3. Describe the ultra structure of skeletal muscle and explain the mechanism of contraction.
4. Describe the endocrine control of mammalian reproduction.

Sub section – B

(Genetics)

5. Justify DNA as the genetic material by Griffith's experiment.
6. Describe various chromosomal disorders in human beings.

Sub section – C

(Organic Evolution)

7. Write an essay on mutations.
8. What is speciation? Explain about allopatric and sympatric speciation.

SECTION-II

(Short Answer Questions)

Marks : 6 x 6 = 36

Answer any **six** questions choosing two from each Sub-section

Draw diagrams wherever necessary

Sub section – A

9. Write the brief description on gastrointestinal hormones.
10. Describe the transport of Co_2 in blood.
11. Write difference between myogenic and neurogenic hearts.

Sub section – B

12. Define synapse? Explain synaptic transmission.
13. Explain the functions of hormones secreted from pituitary gland.
14. Describe the mechanism of homeostasis with any one example.

Sub section – C

15. Explain genetic interactions with any one example.
16. Describe the mechanism of DNA replication.
17. Describe the modern synthetic theory of evolution.

SECTION – III

(Very Short Questions) Marks : 2 x 8 = 16

Answer any **eight** questions

18. Insulin
19. Oxygen dissociation curve.
20. Tachycardia
21. Ureotelic animals.
22. Sarcomere
23. Action potential
24. FSH
25. Homeostasis
26. Epistosis
27. Down syndrome
28. Hardy-weinberg's law
29. Natural selection

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