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Part III — ZOOLOGY

(New Syllabus)

(English Version)

Time Allowed : 3 Hours]

[Maximum Marks : 150

PART - I

- Note :*
- i) All the questions are to be answered.
 - ii) Each question carries *one* mark.
 - iii) Choose and write the correct answers in the answer-book.

30 × 1 = 30

1. Unremitting chest pain is due to the disease
 - a) Angina
 - b) Myocardial infarction
 - c) Anaemia
 - d) Polycythemia.

2. Men are affected earlier by Atherosclerosis than women because women have a natural hormone called

a) androgen	b) pepsinogen
c) oestrogen	d) casinogen.

3. The most important function of the adrenal cortex is its role in

a) milk production	b) stress tolerance
c) reproduction	d) blood clotting.

4. The principal organ of urea biosynthesis is

a) kidney	b) tissue
c) lungs	d) liver.

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5. The conditioned reflexes are controlled by
- a) Cerebral cortex
 - b) Cerebellar cortex
 - c) Medullar cortex
 - d) Cerebral nuclei.
6. The uptake of genes by the cells in animals is called
- a) Transduction
 - b) Deletion
 - c) Translocation
 - d) Transfection.
7. A fatal disease caused by autosomal dominant gene is
- a) Sickle cell anaemia
 - b) Thalassemia
 - c) Huntington's chorea
 - d) SCID.
8. The information regarding the three dimensional structure of proteins is stored in computerised database called
- a) Protein data bank
 - b) Protein 3D structure
 - c) DNA library
 - d) Protein model.
9. The gas which traps 300 times more heat than carbon dioxide is
- a) Methane
 - b) Chlorofluorocarbon
 - c) Nitrous oxide
 - d) Hydrocarbon.
10. The presence of vesicles, pustules and scabies on skin, udder and teats is the symptom of the disease called
- a) Milk fever
 - b) Constipation
 - c) Anthrax
 - d) Cow-pox.

11. The gene for sickle cell anaemia protects their inheritors from
- a) Jaundice
 - b) Tuberculosis
 - c) Chicken pox
 - d) Malaria.
12. The Neo-Darwinians believed that the characters are due to certain factors called
- a) determinants
 - b) genes
 - c) pangenes
 - d) chromosomes.
13. Which one of the following is an exotic fish ?
- a) Catla
 - b) Rohu
 - c) Tilapia
 - d) Mrigal.
14. The preferable age group for the selection of breeder in hypophystation technique is
- a) 2 - 3 years
 - b) 3 - 4 years
 - c) 2 - 4 years
 - d) 2 - 5 years.
15. Hatchery technology for seabass has been developed for the first time in India by
- a) ICFA
 - b) MPEDA
 - c) CMFRI
 - d) CIBA.
16. In foodgrains the starch is available in the form of
- a) Pectin
 - b) Chitin
 - c) Cellulose
 - d) Galactose.
17. The process of maturation of erythrocytes is due to Vitamin
- a) B_6
 - b) B_1
 - c) B_2
 - d) B_{12} .

18. The fractures due to pathological lesions may be due to

- a) hypothyroidism
- b) hypoparathyroidism
- c) hyperparathyroidism
- d) hyperthyroidism.

19. A small segment of the myofibril is called as

- a) sarcolemma
- b) sarcomere
- c) a band
- d) myosin.

20. When the alveoli is stretched, the receptors send stimuli to expiratory centre through

- a) Phrenic nerves
- b) Intercostal nerves
- c) Cutaneous nerves
- d) Vagus nerves.

21. The fertilization of the ovum takes place in the region called

- a) uterus
- b) vagina
- c) fallopian duct
- d) vas deferens.

22. The discovery of Joseph Lister on the microbes was

- a) staining procedure
- b) fermentation
- c) antiseptic surgery
- d) viruses.

23. Which of the following is antiviral ?

- a) Interferon
- b) Lysozyme
- c) Protein
- d) Hormone.

24. Graft used in plastic surgery is

- a) Xenograft
- b) Allograft
- c) Autograft
- d) Isograft.

PART - II

Note : i) Answer any *fifteen* questions.

ii) Each question carries *three* marks.

15 × 3 = 45

31. What is known as Hypoglycemia ?
32. What is called teratogenic disorder ?
33. What is Pleurisy ?
34. How is coronary angioplasty done ?
35. What is corpus albicans ?
36. What are the two types of retinopathy ?
37. Define Tubectomy.
38. What is called Transduction ?
39. What are haptens ?
40. Write any two symptoms of Thalassemia.
41. What is 'Gene Therapy' ? Mention its two types.
42. Mention any two advantages of 'Solar energy'.
43. Mention any two control measures of the disease Anthrax.
44. What is 'artificial Pacemaker' ? What is its purpose ?
45. Mention any two breeds of indigenous fowls and their places of occurrence.
46. What are three stages of Sericulture ?
47. What is Sericin ?
48. Define Hardy-Weinberg's law.
49. What is larvivorous fish culture ?
50. Define metahaline culture.

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PART - III

Note : i) Answer any *seven* questions including Question No. **56** which is compulsory.

ii) Each question carries *five* marks. 7 × 5 = 35

51. Describe the origin and conduction of heart-beat with a neat diagram.

52. Write a short note on the causes and symptoms of tuberculosis.

53. Give a brief account of the life cycle of *Schistosoma haematobium*.

54. Write a note on control and preventive measures of AIDS.

55. What are the symptoms of graft rejection ?

56. List out the effects of global warming.

57. Write the various measures to eradicate poverty in human society.

58. Write a note on any one of the draught breeds of cattle.

59. Draw and label normal ECG and write any one point about each wave.

60. Briefly describe 'Sewal-Wright effect'.

61. Give an account of bionomics of Rohu.

62. Explain composite fish culture.

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PART - IV

Note : i) Answer any *four* questions.

ii) Each question carries 10 marks.

4 × 10 = 40

63. Write notes on the following disorders connected to the digestive system :

a) Peptic ulcer

b) Hernia.

64. Describe the process of urine formation in man.

65. Write an essay on focussing mechanism in the human eye. Add a note on eye-care.

66. Write an essay on pathogenicity of micro-organisms and infections.

67. Define cloning. Illustrate the cloning of sheep mechanism.

68. Explain in detail the management of hazardous waste.

69. Explain any two contagious diseases and two non-contagious diseases found in cattle. Mention about their prevention.

70. Explain the physico-chemical and biological factors for Pond fish culture.
