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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.

[Turn over

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 hypophysectomy 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.

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.
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