

Tamil Nadu State Board - Class XII

Zoology

(Model Paper)

Time : 3 Hours

Max Marks : 150

PART A

- i. Note : Each question carries 1 mark
- ii. Answer all questions
- iii. Multiple Choice : Choose the correct Answer($30 \times 1 = 30$)

1. Mention the minimum quantity for dietary intake of iodine to avoid non secretion of thyroxine.
 1. 1g / day
 2. 10 micrograms / day
 3. 10g / day
 4. 100 micrograms / day

2. Myasthenia gravis is a / an
 1. Vitamin deficiency disease
 2. Infectious disease
 3. Kidney disorder
 4. Autoimmune disease.

3. Type II diabetes is due to
 1. Non secretion of insulin
 2. insulin resistance
 3. poor eating
 4. anaemia

4. Alzheimer's disease is associated with
 1. inflammation of the meninges
 2. bleeding of brain vessels
 3. spinal cord malfunctions.
 4. atrophy of cerebral cortex

5. The exchange of information between right and left cerebral hemispheres is made possible through
 1. Pons
 2. Optic chiasma
 3. Diencephalon

4. Corpus callosum

6. An increase in the number of RBC may lead to

1. Anaemia
2. Leukemia
3. Leukopenia
4. Polycythemia

7. The ability of the eyes to focus objects at varying distances is called as

1. Adaptation
2. Accomodation
3. Scotopic vision
4. Photopic vision

8. Abnormal sensitivity to bright light is called

1. Myopia
2. Nyctalopia
3. Photophobia
4. Astigmatism

9. The characteristic texture of the human skin is due to

1. Presence of hairs
2. Sweat glands
3. Keratinization
4. Mineralisation

10. Polyurea and Polydipsia may be symptoms of

1. Liver cirrhosis
2. Myocardial infarction
3. Diabetes mellitus
4. Myasthenia gravis.

11. Stones formed in the urinary bladder can be disintegrated by a treatment called

1. Lithotripsy
2. ECG
3. EEG
4. CT Scanning

12. Identify the Protozoan disease

1. African sleeping sickness
2. Cholera

3. Taeniasis
4. Measles

13. Antiviral proteins released by cells like WBC are called as

1. toxins
2. hormones
3. interferons
4. endonucleases

14. How will you name a graft, if an organ is transplanted from a cat to a dog?

1. Isograft
2. Autograft
3. Xenograft
4. Allograft

15. Both the T lymphocytes and B lymphocytes are produced in

1. Thymus
2. Liver
3. Kidney
4. Bone marrow

16. The term superbugs refers to

1. Arthropods
2. Insects
3. Beetles
4. Genetically engineered bacteria

17. Protein data banks are storehouses for

1. storage of various types of proteins
2. information related to three dimensional structure of proteins
3. cryopreservation of proteins
4. base pairing sequences.

18. In genetic engineering which of the following is an efficient gene exchanging vehicle provided by nature.

1. Enzymes
2. Plasmids
3. Bacteria
4. Viruses

19. Loss of freshwater sources due to saltwater intrusion may be due to

1. global warming
2. Sea level increase
3. construction of dams
4. over use of groundwater resources.

20. The blood cell count is made by using

1. Glucometer
2. Sphygmomanometer
3. Haemoglobinometer
4. Haemocytometer

21. What is the scientific name for the common Viral Meen?

1. Channa striatus
2. Oreochromis mossambicus
3. Chanos chanos
4. Catla catla

22. Milk fever in cows is normally due to

1. inability to assimilate calcium from the feed
2. starvation
3. over feeding
4. parasitic infestation

23. A haemocytometer is an instrument meant for

1. assessing the blood volume
2. finding the haemoglobin content
3. counting the number of blood cells.
4. measuring the size of RBC.

24. In an accident a person received a serious head injury. What immediate investigative method, the doctor might prescribe to assess the damage?

1. WBC Count
2. Urine analysis
3. CT scan
4. Biopsy

25. The caterpillar of *Bombyx mori* produces

1. Tasar silk
2. Eri silk
3. Munga silk
4. Mulberry silk

26. Closely related species living together in one common locality and maintaining their species identity are termed as
1. Sympatric species
 2. Allopatric species
 3. Sibling species
 4. Endangered species
27. The book titled "Genetics and the origin of species" was written by
1. Th. Dobzhansky
 2. Charles Darwin
 3. Lamarck
 4. Ernst Mayr
28. The recently hatched tiny fishes are termed as
1. Fingerlings
 2. Fry
 3. Young fishes
 4. small fishes
29. Hatchery technology for sea bass has been developed for the first time in India by
1. CIBA
 2. CMFRI
 3. CIFA
 4. MPEDA
30. *Scylla serrata* is a / an
1. Ornamental fish
 2. fresh water fish
 3. crab
 4. sea weed

PART - B

- i. Note: Each question carries 2 marks
 - ii. Answer 15 questions ($15 \times 3 = 45$)
31. What is the role of water in our body?
32. Define Body mass index (BMI)
33. What is liver cirrhosis? Mention the symptoms.
34. Name the proteins that constitute the contractile machinery of a muscle fibre.
35. What is Herring Breuer reflex?

36. What is meant by myocardial infarction?
37. Write a brief note on REM sleep.
38. How is the *Plasmodium falciparum* infection dangerous?
39. Define cell mediated immunity (CMI)
40. Mention the languages that help in bioinformatics
41. What is molecular cloning?
42. What are Bio-medical wastes? How are they disposed off ?
43. Suggest a situation in which a doctor might advice a CT scan.
44. What is Royal jelly?
45. Name the important research centers for sericulture.
46. What is nuptial flight?
47. Provide the characteristics of *Catla catla*
48. What are allopatric species?
49. What is composite fish culture ?
50. Mention the nutritive value of edible oysters.

PART C

- i. Note : Answer any 7 questions
 - ii. Answer to question 56 is compulsory
 - iii. Each question carries 5 marks($7 \times 5 = 35$)
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51. Explain the role of Sodium Potassium exchange pump in nervous conduction, with appropriate diagrams.
 52. Provide the calorie requirement for Indian men and women doing moderate work. Suggest appropriate balanced vegetarian diet for them.
 53. Write notes on coronary angiography and angioplasty.
 54. Give a descriptive account on the larvae of tapeworms.
 55. It may rather be difficult to get infected Discuss the statement on the basis of the barriers providing innate immunity.
 56. Write notes on waste water treatment and management.
 57. What measures can you suggest for arresting ozone depletion?
 58. What are the factors to be considered while brooding the hatched chicks?
 59. Write briefly what you know about ECG with a graph.
 60. What is Hardy Weinberg law? Discuss its importance in population genetics.
 61. Mention the various techniques employed in mariculture.
 62. Write notes on cultivable fishes of India.

PART D

- i. Note : Answer any 4 questions
 - ii. Each question carries 10 marks($4 \times 10 = 40$)
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63. Enumerate the process of digestion of food in the gastro intestinal tract.
 64. Describe the functioning of eye as a visual receptor. Add a note on eye care.
 65. What is the need for birth control? Enumerate the various methods of contraception?
 66. Write an essay on AIDS, its symptoms, control and management.
 67. Give an account on cloning. Comment on its merits and demerits
 68. "Global warming is the direct result of Green house effect". Discuss the statement. What related problems do we foresee?
 69. Write an essay on Cattle wealth of India.
 70. Write an essay on common fresh water ornamental fishes.

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