

# Tamil Nadu State Board - Class XII

## Bio-Zoology

### (Model Paper)

Time : 1 Hour

Max Marks : 75

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#### Part - A

- i. Choose the correct answer
- ii. Each question carries 1 mark
- iii. Answer all questions: ( $16 \times 1 = 16$  marks)

1. According to ICMR, the daily requirement of protein for an average Indian is

1. 100 g / day
2. 100 g / kg body wt
3. 1 g / kg body wt. / day
4. 1 g / day

2. Type II diabetes is due to

1. non secretion of insulin
2. insulin resistance
3. poor eating
4. anaemia

3. Myasthenia gravis is a / an

1. vitamin deficiency disease
2. infectious disease
3. kidney disorder
4. autoimmune disease

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

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

5. The causative organism for cholera is
  1. Yersinia pestis
  2. Vibrio cholera
  3. Plasmodium vivax
  4. Ascaris lumbricoides
  
6. Identify the Protozoan disease
  1. African sleeping sickness
  2. Cholera
  3. Taeniasis
  4. Measles
  
7. HIV infection causes
  1. a. anaemia
  2. diarrhoea
  3. immuno depression
  4. stroke
  
8. How will you name a graft if an organ is transplanted from a cat to a dog?
  1. a. Isograft
  2. Autograft
  3. Xenograft
  4. Allograft
  
9. The term superbugs refers to
  1. Arthropods
  2. Insects
  3. Beetles
  4. Genetically engineered bacteria
  
10. 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
  
11. 95% of all conventional energy is produced from
  1. fossil fuels
  2. sun light
  3. nuclear energy sources
  4. water power

12. Loss of freshwater sources due to salt water intrusion may be due to

1. global warming
2. sea level increase
3. construction of dams
4. over use of ground freshwater resources

13. Milk fever in cows is normally due to

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

14. What is the scientific name for the common Viral meen (uh ங)

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

15. The blood cell count is made by using

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

16. 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

### Part - B

- i. Answer any 8 questions
- ii. Each question carries 3 Marks : ( $8 \times 3 = 24$  marks)

17. What is the role of water in our body?

18. Mention the two surgical contraception methods adopted for birth control.

19. How did Joseph Lister made the surgical treatments safer?

20. Define cell mediated immunity (CMI).

21. What could be the application of stem cell technique and cloning of cells in the future?

22. What are the clinical manifestations of the disease, Thalassemia.

23. Mention the languages that help in bioinformatics.

24. What is the application of demography?

25. What are Bio-medical wastes? How are they disposed off.
26. Suggest a situation in which a doctor might advice a CT scan.
27. What are the uses of Sphygmomanometer?
28. What are allopatric species.

**Part - C**

- i. Answer any 3 questions
- ii. Answer to question 31 is compulsory.
- iii. Each question carries 5 marks: ( $3 \times 5 = 15 \text{ marks}$ )

29. Explain the role of Sodium - Potassium exchange pump in nervous conduction.
30. It may rather be difficult to get infected - Discuss the statement on the basis of barriers providing innate immunity.
31. Briefly provide the life cycle of Schistosomes haematobium.
32. Describe how our knowledge of Embryology and Genetics are applied in the cloning technique.
33. What is Hardy - Weinberg law? Discuss its importance in population genetics.

**Part - D**

- i. Answer any 2 questions
- ii. Each question carries 10 marks. ( $2 \times 10 = 20 \text{ marks}$ )

34. Enumerate the process of digestion of food in the gastro-intestinal tract.
35. Describe the functioning of eye as a visual receptor. Add a note on eye care.
36. Global warming is the direct result of Green house effect. Discuss the statement. What related problems do we foresee?
37. Write an essay on cattle wealth of India.

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