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**8051**

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**Part III — ZOOLOGY**

( 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. Lamarck proposed a theory called
  - a) inheritance of acquired characters
  - b) organic evolution
  - c) theory of abiogenesis
  - d) theory of universal existence.
  
2. Sickel cell anaemia is more frequent among ..... population.
  - a) African black
  - b) American black
  - c) European white
  - d) Asian population.
  
3. Carp fish is normally cultured by
  - a) composite fish culture
  - b) race way culture
  - c) sewage fed fish culture
  - d) integrated fish culture.

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4. Identify the zoological name for 'Koduva'.

- |                            |                            |
|----------------------------|----------------------------|
| a) <i>Ostrea edulis</i>    | b) <i>Scylla serrata</i>   |
| c) <i>Lates calcarifer</i> | d) <i>Penaeus indicus.</i> |

5. Guppy is an exotic variety of ornamental fish which originates from

- |                    |             |
|--------------------|-------------|
| a) Africa          | b) Thailand |
| c) Central America | d) Japan.   |

6. The viral disease of cattle is

- |                             |                    |
|-----------------------------|--------------------|
| a) Mastitis                 | b) Tuberculosis    |
| c) Haemorrhagic septicaemia | d) Foot and mouth. |

7. The fish food organisms are

- |                 |              |
|-----------------|--------------|
| a) zooplanktons | b) plants    |
| c) worms        | d) bacteria. |

8. The method for identification of urine sugar is

- a) Haemocytometer method
- b) Chromatography
- c) Manometer method
- d) Electronic urine test method.

9. Bee-venom is useful for curing

- |               |            |
|---------------|------------|
| a) fever      | b) ulcer   |
| c) rheumatism | d) tumour. |

10. The pacemaker of the heart is

- |                    |                   |
|--------------------|-------------------|
| a) Sinuatrial node | b) Cardiac muscle |
| c) AV node         | d) Myocardium.    |

11. Super bugs are used for / to
- a) clean oil spill
  - b) karyotype study
  - c) kill virus
  - d) kill bacteria.
12. The stage which is ideal for transfer of whole chromosome is
- a) anaphase
  - b) telophase
  - c) prophase
  - d) metaphase.
13. DNA library is a collection of
- a) chromosomal fragments
  - b) DNA fragments
  - c) RNA fragments
  - d) complete DNA.
14. The more abundant greenhouse gas is
- a)  $N_2O$
  - b)  $CO_2$
  - c)  $O_3$
  - d)  $SO_2$ .
15. The home of Sindhi breed is
- a) Baroda
  - b) Karachi and Hyderabad
  - c) Haryana and Ongole
  - d) Maharashtra.
16. In human, the fertilization occurs in the
- a) fallopian tube
  - b) uterus
  - c) vagina
  - d) cervix.
17. Rabies virus belongs to a type of virus called
- a) oncogenic virus
  - b) rhabdo virus
  - c) retro virus
  - d) variola virus.

18. Innate immunity through 'Phagocytosis' is provided by
- a) erythrocytes
  - b) thrombocytes
  - c) leucocytes
  - d) antibodies.
19. The thymus functions best during
- a) later life
  - b) middle age
  - c) sleeping
  - d) early life.
20. The immunoglobulins are made up of
- a) lipoproteins
  - b) phosphoproteins
  - c) glycoproteins
  - d) simple proteins.
21. The floor of thoracic cage is provided with
- a) peritoneal membrane
  - b) internal intercostal muscles
  - c) diaphragm
  - d) external intercostal muscles.
22. What is the function of Purkinje system ?
- a) To give rigidity to ventricles
  - b) To give flexibility to ventricles
  - c) Conducting impulses to the ventricles
  - d) To relax the muscles after systole.
23. The average weight of the cerebrum in human female is about
- a) 900 - 1000 g
  - b) 1200 g
  - c) 1100 g
  - d) 1400 g.
24. The gonadotrophic hormone is
- a) TSH
  - b) GH
  - c) FSH
  - d) ACTH.

25. The principal organ of urea biosynthesis is
- a) pancreas
  - b) stomach
  - c) kidney
  - d) liver.
26. The energy released by oxidation from glucose molecules gets stored in the form of
- a) Adenosine monophosphate molecules ( AMP )
  - b) Adenosine diphosphate molecules ( ADP )
  - c) Adenosine triphosphate molecules ( ATP )
  - d) Phosphate molecules.
27. Marasmus is caused due to the deficiency of
- a) Carbohydrates
  - b) Fats
  - c) Vitamin D
  - d) Proteins.
28. Digestion is carried out with the help of
- a) Hormones
  - b) Enzymes
  - c) Catalysts
  - d) Vitamins.
29. The blood clot at the place of fracture forms
- a) arterial thrombus
  - b) infarction of bone
  - c) haematoma
  - d) callus.
30. A few hours after death all the muscles of the body attain a state of contracture. It is called as
- a) muscle pull
  - b) muscle fatigue
  - c) rigor mortis
  - d) muscle tear.

## PART - II

Note : i) Answer any *fifteen* questions.

ii) Each question carries *three* marks.

15 × 3 = 45

31. What are essential amino acids ?
32. How are the gall stones formed ?
33. Define the term 'Physiotherapy'.
34. Write the symptoms of chronic bronchitis.
35. Define hormones.
36. Name two types of cataract.
37. How is calculus formed ?
38. Define antibiotic.
39. Write a note on graft rejection.
40. Mention two uses of Karyotyping.
41. What is the cause for albinism ?
42. What is called seeding clouds ?
43. What is milk fever ?
44. Name the two types of Sphygmomanometer.
45. Define Apiculture.
46. What is CT Scan ?

47. Mention the various enemies of silkworm.
48. What is meant by chromosomal aberration ?
49. Define aquaculture.
50. What is called Hapa ?

### 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. Give a brief account of proteins.
52. Describe the endocrine functions of Neurohypophysis.
53. Write a short note on virus structure.
54. Explain Amoebiasis.
55. What is transplantation ?
56. Give an account on wind energy.
57. Write a short note on rain water harvesting.
58. Explain the draught breeds of cattle.
59. Describe stethoscope with suitable diagram.
60. Describe the modern concept of natural selection.
61. Give an account of sea-weed culture.
62. What are the prospects of aquaculture ?

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**PART - IV**

*Note :* i) Answer any *four* questions.

ii) Each question carries *ten* marks.

4 × 10 = 40

63. Explain the process of digestion in small intestine.
  64. Give an account on the composition of blood.
  65. Explain the mechanism of hearing in man with suitable diagram.
  66. Describe the mechanisms of acquired immunity through immunoglobulins.
  67. Describe any four of the genetic diseases in detail.
  68. Write an essay on greenhouse gases and their impact on the environment.
  69. Explain the stages involved in the rearing of poultry.
  70. What is fresh-water aquaculture ? Classify its types.
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