

**B**

*Mar 2009 QP's*

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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. The raw material for evolution is
  - a) temperature
  - b) over-production
  - c) mutation
  - d) somatoplasm.
2. New Darwinism was accepted by
  - a) Wallace
  - b) F. B. Sumner
  - c) McDougall
  - d) Huxley.
3. In cultivable fishes, blindness and haemorrhage are the symptoms for
  - a) Costiasis
  - b) Dropsy
  - c) Gill rot
  - d) Saprolegniasis.
4. The suitable salinity of water for Pearl culture is
  - a) 30%
  - b) 10%
  - c) 20%
  - d) 40%.

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5. Which is the medicinal food of 21st Century ?

- a) Oyster
- b) Sea weed
- c) Prawn
- d) Fishes.

6. Peacomb is the important breed character of

- a) Plymouth
- b) Brahma
- c) Leghorn
- d) Sussex.

7. The time duration of P-wave in E.C.G. is

- a) 0.1 second
- b) 0.08 second
- c) 0.27 second
- d) 0.01 second.

8. The use of beehive products to promote health and healing is called

- a) Physiotherapy
- b) Chemotherapy
- c) Apitherapy
- d) Orthopaedics.

9. Which one of the following is the superior quality of silk ?

- a) Eri silk
- b) Tasar silk
- c) Munga silk
- d) Mulberry silk.

10. The fish that guards the fertilized eggs in its mouth is

- a) Mullet
- b) Tilapia
- c) Pomfret
- d) Catla catla.

11. In karyotyping X chromosome belongs to

- a) A-group
- b) B-group
- c) C-group
- d) D-group.



12. The existence of mobile genetic elements ( Transposons ) were visualized by
- a) Watson & Crick
  - b) Barbara Meclintock
  - c) Anand Chakrabarty
  - d) Briggs and King.
13. 'Glowing Coal' is the computer graphic model of
- a) DNA
  - b) Carbohydrate
  - c) Lipid
  - d) Protein.
14. Which is rich in Plant Bio-diversity ?
- a) Nilgiri
  - b) Gulf of Mannar
  - c) Nokrek
  - d) Great Nicobar.
15. The milk of which of the following cows is characterisd by high carotene content ?
- a) Sindhi
  - b) Haryana
  - c) Gir
  - d) Jersey.
16. Sperms are stored in the
- a) Testes
  - b) Prostate gland
  - c) Epididymis
  - d) Seminal vesicle.
17. The most promising chemotherapeutic agent for treating viral diseases is
- a) Interferon
  - b) Penicillin
  - c) Amantadine
  - d) Streptomycin.

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18. Cell mediated immunity is the responsibility of
- a) Cytotoxic T-lymphocytes
  - b) B-lymphocytes
  - c) Macrophages
  - d) Antigen presenting cells.
19. Graft between identical twins is called as
- a) Autograft
  - b) Isograft
  - c) Allograft
  - d) Xenograft.
20. Which of the following is a primary lymphoid organ ?
- a) Thymus
  - b) Spleen
  - c) Lymph nodes
  - d) MALT.
21. The largest leucocytes are
- a) Monocytes
  - b) Lymphocytes
  - c) Neutrophils
  - d) Basophils.
22. The substance released in the neuromuscular junction is
- a) Calcium phosphate
  - b) Acetylcholine
  - c) Glycoprotein
  - d) Potassium chloride.
23. Chronic brain syndrome is otherwise called as
- a) Myasthenia gravis
  - b) Amnesia
  - c) Alzheimer's disease
  - d) Stroke.



24. The major mineralocorticoid hormone is

- |                  |                   |
|------------------|-------------------|
| a) Aldosterone   | b) Corticosterone |
| c) Catecholamine | d) Adrenaline.    |

25. Which of the following is used to remove stones from the urinary bladder ?

- |                   |                |
|-------------------|----------------|
| a) Plasmaphoresis | b) Endoscopy   |
| c) Dialysis       | d) Cystoscopy. |

26. Immunity against infection is provided by

- |              |               |
|--------------|---------------|
| a) Vitamin A | b) Vitamin K  |
| c) Vitamin C | d) Vitamin D. |

27. The normal BMI range for adult is

- |            |             |
|------------|-------------|
| a) 20 - 30 | b) 19 - 25  |
| c) 15 - 20 | d) 10 - 15. |

28. Which is characterised by the deposition of sodium urate crystals ?

- |                         |                   |
|-------------------------|-------------------|
| a) Rheumatoid arthritis | b) Osteoarthritis |
| c) Gout                 | d) Rickets.       |

29. Gall stones are made up of

- |                 |                    |
|-----------------|--------------------|
| a) sodium urate | b) calcium oxalate |
| c) glycogen     | d) cholesterol.    |

30. The alveolar  $PO_2$  is about

- |              |              |
|--------------|--------------|
| a) 100 mm Hg | b) 140 mm Hg |
| c) 40 mm Hg  | d) 46 mm Hg. |

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## PART - II

Note : i) Answer any *fifteen* questions.

ii) Each question carries *three* marks.

15 × 3 = 45

31. What is 'PUFA' ? Mention its significance.
32. Name the enzyme present in saliva. State its function.
33. Define Physiotherapy.
34. What is 'Silent infarction' ?
35. What is Rigor Mortis ?
36. What is cataract ? Mention the two types of cataract.
37. What is Vasectomy ?
38. What are the three kinds of Proglottids in Tapeworm ?
39. What is Severe Combined Immuno Deficiency disease ( SCID ) ?
40. What are superbugs ? What is the use of superbugs ?
41. Write a merit of cloning technique.
42. What is carbon sequestration ?
43. How will you identify a healthy cattle ?
44. What are the points to be considered during selection of eggs for hatching purpose ?
45. What are the advantages of Autoanalyser ?
46. What is 'Swarming' ?



47. Mention the three stages of sericulture.
48. State Hardy-Weinberg's law.
49. What is hypophystation ?
50. What is a Bouchot ?

### 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 process of clotting of blood.
52. What is memory ? Write about the various types of memory.
53. Give an account of Bacterial genetics.
54. Enumerate the symptoms of AIDS, defined by WHO.
55. Describe the structure of Immunoglobulin with a neat diagram.
56. Enumerate any five effects of Global warming.
57. Write any five reasons for fresh water shortage.
58. Write a short note on artificial pacemaker.
59. Describe the formation of silk.
60. Write short notes on Sewall Wright effect.
61. Give an account of integrated fish culture.
62. How will you set up an aquarium tank ?

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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 at small intestine.
  64. Give an account of the hormones secreted by anterior pituitary.
  65. Write an essay on menstrual cycle.
  66. Give an account of various viral diseases in man.
  67. Describe any four genetic diseases.
  68. Describe the management of hazardous waste.
  69. Give an account of edible fresh water fishes of Tamil Nadu.
  70. Explain the physical, chemical and biological factors of a fish pond.
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