PART - III

ZOOLOGY

(Tamil and English Versions)

Time Allowed : 3 Hours

Instructions:
1. Check the question paper for fairness of printing. If there is any lack of fairness, inform the Hall Supervisor immediately.
2. Use Black or Blue ink to write and pencil to draw diagrams.

PART - I

(i) Answer all the questions.

(ii) Choose and write the correct answers.

1. Rapid birth hormone is:
   (a) Insulin  (b) Oxytocin
   (c) Glucagon  (d) Vasopressin
2. Which enzyme is involved in the process of rigor mortis:
   (a) Adenosine triphosphatase (ATPase)
   (b) Creatine kinase (CK)
   (c) Lactate dehydrogenase (LDH)
   (d) Cytochrome oxidase

During rigor mortis, muscle proteins are destroyed by:
(a) glycolytic enzymes  (b) mitochondrial enzymes
(c) lysosome enzymes  (d) esterases

3. Which gas is the most abundant greenhouse gas:
   (a) NO₂  (b) CO₂  (c) O₃  (d) SO₂

The most abundant greenhouse gas is:
(a) NO₂  (b) CO₂  (c) O₃  (d) SO₂

4. Which gas is the most abundant greenhouse gas:
   (a) 2 mole  (b) 8 mole  (c) 16 mole  (d) 32 mole

During test tube baby technique which cell stage embryo is put inside the uterine endometrium:
(a) 2 cells  (b) 8 cells  (c) 16 cells  (d) 32 cells

5. Which vitamin is called ‘Sunshine Vitamin’?
   (a) Vitamin A  (b) Vitamin C  (c) Vitamin D  (d) Vitamin E

6. Which enzyme is used in karyotyping technique to stop mitosis at metaphase in foetal cells:
   (a) Interferon  (b) Colchicine  (c) Endonuclease  (d) Transcriptase
7. The tastiest carp fish of all carps is:
   (a) Catla Catla  (b) Labeo rohita
   (c) Cirrhina mrigala  (d) Ciprinus Carpio

8. The normal blood glucose level during fasting is:
   (a) 70 to 110 mg/dl  (b) 80 to 200 mg/dl
   (c) 100 to 150 mg/dl  (d) 200 to 250 mg/dl

9. The device to record electrical activity of the brain is:
   (a) E.C.G.  (b) Angiogram
   (c) E.E.G.  (d) Angioplasty

10. 'Glowing coal' model defines the structure of:
    (a) DNA  (b) RNA  (c) Protein  (d) Gene

11. Histamine is secreted by:
    (a) Epithelial cells  (b) Mast cells
    (c) Red blood cells  (d) White blood cells
12. HIV-¢à RNA ுுచమాయ DNA-వాట మారిండి:
(a) DNA ligase  (b) Restriction endonuclease
(c) Reverse transcriptase  (d) DNA polymerase

13. పల్పిమాలు ప్లాంట్స్ నకండి నకండి ఏడాది ఇస్తుంది? ఏ ప్లాంట్స్ నకండి నకండి ఇస్తుంది?
(a) మిసియా (b) సాఫొట్టింగ్ కాచరు (c) కాచరు (d) సాఫొట్టింగ్

In India, cultured pearls were produced for the first time in 1973 at:
(a) Mumbai  (b) Kolkata  (c) Tuticorin  (d) Chennai

14. పల్పిమాలకు ప్లాంట్స్ నకండి రాయి అభియుక్తం అభియుక్తిపరంపర పల్పిమాలకు పిలిచేందరు?
(a) అభియుక్తం (b) ఆవిష్కృతీ (c) లిపించిన (d) రాయి

In melanophore cells melanin is produced from which amino acid?
(a) Valine  (b) Arginine  (c) Tyrosine  (d) Histidine

15. 21 సెంటూరీ యుగంలో పిలిచే బండ్లరు చాలా చాలా ఆమెంచేపిలిచే యుగం?
(a) మిసియా  (b) మాచరు కాచరు (c) బండ్లరు  (d) చాలా చాలా

Medicinal food of 21st century is:
(a) Fish  (b) Oyster  (c) Prawn  (d) Seaweed

16. పిలిచే వాటికి ఎలా కనిపించలిస్తాయంటే అలంకరణం ఇచ్చిన నాగరి?
(a) మిసియా (b) మిసియా (c) మిసియా (d) మిసియా

Which disease is caused due to an inborn error of purine metabolism?
(a) Infective arthritis  (b) Rheumatic arthritis
(c) Osteo arthritis  (d) Gout
17. The dilution fluid used to count RBC is:
(a) Hayem’s solution  (b) Turk’s solution
(c) Toisson solution  (d) Lymphatic solution

18. The example for polymorphism is:
(a) typhoid  (b) yellow fever
(c) sickle cell anaemia  (d) multiple sclerosis

19. The litter bed of poultry has the thickness of:
(a) 5 to 7.5 cm  (b) 4 to 6.5 cm
(c) 5.5 to 6 cm  (d) 4.5 to 5 cm

20. Which of the following WBCs, contains heparin?
(a) Basophils  (b) Neutrophils
(c) Lymphocytes  (d) Eosinophils

21. In the absence of the natural food these animals become cannibals:
(a) Penaeus indicus  (b) Scylla serrata
(c) Catla Catla  (d) Macrobrachium rosenbergii
22. Black water fever is caused by:
   (a) Plasmodium vivax              (b) Plasmodium malariae
   (c) Plasmodium ovale            (d) Plasmodium falciparum

23. Silk worm feed with Mulberry leaves:
   (a) Bombyx mori                (b) Antheraea mylita
   (c) Attacus ricini            (d) Antheraea assama

24. Graft between identical twins is called:
   (a) Xenograft                (b) Allograft
   (c) Autograft              (d) Isograft

25. The type of sugar, which is the integral component of RNA and DNA:
   (a) trioses               (b) tetroes
   (c) pentoses            (d) hexoses
26. Apis indica is:
(a) Indian bee
(b) African bee
(c) European bee
(d) Rock bee

27. For the transfer of whole nuclei, the cells are treated with:
(a) DNA ligase
(b) Cytochalasin B
(c) Colchicine
(d) Endonuclease

28. The negative waves in normal ECG are:
(a) P and Q
(b) Q and R
(c) P, Q and R
(d) Q and S

29. The connection between sickle-cell anaemia and malaria was established by:
(a) Darwin
(b) Allison
(c) Lamark
(d) Weismann

30. Number of ATP molecules spent to convert ammonia into a molecule of urea are:
(a) Four
(b) Two
(c) Three
(d) One
Note: Answer any fifteen questions.

31. BMI என்பது.
   Define BMI.

32. கருத்து கலா குழுக்களின் மூலம் பார்க்க பார்க்க பார்க்க பார்க்க பார்க்க பார்க்க?
   What are the types of hearing loss?

33. வறும - விளக்குக்கு வட்டம் வளர்த்தே விளக்குக்கு விளக்குக்கு விளக்குக்கு விளக்குக்கு.
   Explain Cardio-Pulmonary Resuscitation.

34. எங்கரைகள் முன்னையே திறனான துணுண்பாகும்.
   Differentiate embolus from Thrombus.

35. நீர்ப்பானைகள் தெளிவானான குழுப்பு பலகு குழுகியாக குழுகியாக குழுகியாக குழுகியாக குழுகியாக குழுகியாக குழுகியாக.
   Mention any three functions of Nephron.

36. அரேக்கு கால்பந்து பாதிப்பில் உள்ள அசீகர்கள் மாற்றம்?
   What are the three zones of Adrenal Cortex?

37. பிளாக்டுவைல் படம் மறையும் பார்க்கும் போட்டு.
   Draw a diagram of spermatozoan with parts.

38. நன்மை குறிப்பிட்டு உள்ள போட்டுகள் பார்க்கும் பார்க்கும் பார்க்கும் பார்க்கும் பார்க்கும் பார்க்கும்?
   What are the notable antibiotics?

39. குறிப்பிட்டு குறிப்பிட்டு குறிப்பிட்டு குறிப்பிட்டு குறிப்பிட்டு குறிப்பிட்டு?
   Mention three main functions of antibodies.

40. கருணைகள் லர்க்கும் கருணைகள் பார்க்கும் பார்க்கும்?
   Write about the uses of karyotyping.
41. உலோர் (மென்பொருள்) மதிக்கச் செய்வது வரலாற் ? உலோர் வாக்குக்கு புனர் மதிக்கச் செய்வது வரலாற் ?
   What is gene therapy? Mention the two types of gene therapy.

42. சூது குறிப்பிட்டு விளக்கம் படம் ?
   What are the advantages of solar energy?

43. குந்ததைகளின் பாதுகாப்பு சூறுகள் வழிக் கொள்ள.
   List out the different types of diseases of cattle.

44. தேன்று சிறுக்கான் படைகள் வரலாற் ?
   What are draught breeds?

45. முடிவு அடைக்கும் தொழில்பகுதியின் பாதுகாப்பு ?
   Mention the disadvantages of auto analyser.

46. சூரிய அலுமினிய விலங்கு பாதுகாப்பு முறை வழிக்கொள்ள.
   Write about chemical composition of honey.

47. கொடுக்கள் படைகள் வரலாற் ?
   What are Bouchots?

48. குறி வகைப்படுத்தி வேளாதார.
   Write notes on gene pool.

49. ஏறு திறன் பாதுகாப்புகளின் திறன் விளக்கும் சிலவும் வலப்புறம் கலப்பு வரலாறு காந்திகள் படைகள் ?
   What are the points to be considered while selecting place for the best fish culture pond?

50. புயல்பொழுது மென்பொருள் படைகள் வரலாற் ?
   What is Costiasis?
Note: Answer any seven questions including question no. 56 which is compulsory.

51. Draw the diagram of organ of corti and label the parts.

52. What are the physiological effects of Insulin?

53. Explain the steps that are involved in the preparation of bacteriological media.

54. What are the symptoms of AIDS defined by WHO?

55. Mention the symptoms of allograft rejection in the host.

56. Write notes on waste water treatment and management.

57. What are the characteristics of a Bio-reserve?

58. Write about the tools and materials necessary for rearing silkworms.
59. What is Haemocytometer? Write its clinical significance.

60. Write down the mechanism that prevents interspecific crosses.

61. What are the main environmental and public health concerns about aquaculture?

62. Give an account on induced breeding in fish culture.

_PTION - IV / PART - IV_

Note: Answer any four questions.

63. Write about Hernia and Appendicitis in detail.

64. Explain the functioning mechanism of human forebrain in detail.

65. Describe the various contraceptive methods.

66. Write an essay on protozoan microbiology.
67. Write about any four genetic diseases.

68. What are the steps to be taken to solve energy crisis?

69. Describe the life cycle of Bombyx mori with the help of a diagram.

70. Write the characteristics of any five fresh water ornamental fish.