COURSE CODE : 135

Time : 2 Hours

Max : 400 Marks

Instructions to Candidates:

1. Write your Register Number within the box provided on the top of this page and fill in the page 1 of the answer sheet using pen.

2. Do not write your name anywhere in this booklet or answer sheet. Violation of this entails disqualification.

3. Read each of the question carefully and shade the relevant answer (A) or (B) or (C) or (D) in the relevant box of the ANSWER SHEET using HB pencil.

4. Avoid blind guessing. A wrong answer will fetch you -1 mark and the correct answer will fetch 4 marks.

5. Do not write anything in the question paper. Use the white sheets attached at the end for rough works.

6. Do not open the question paper until the start signal is given.

7. Do not attempt to answer after stop signal is given. Any such attempt will disqualify your candidature.

8. On stop signal, keep the question paper and the answer sheet on your table and wait for the invigilator to collect them.

9. Use of Calculators, Tables, etc. are prohibited.
1. Jumping Gene is
   (A) Poson
   (C) Transposon
   (B) Recon
   (D) Operon

2. Balbiani Rings are associated with
   (A) Giant Chromosome
   (C) Cromatid
   (B) Xchromosome
   (D) Y chromosome

3. Holandric gene is presented in
   (A) Autosome
   (C) Movable gene
   (B) Y chromosome in male
   (D) Kinetochore

4. Bombay phenomenon is established in
   (A) Anatomy
   (C) Food chemistry
   (B) Blood grouping
   (D) Rh-factor

5. Klinefelter syndrome is
   (A) Addition of chromosome
   (C) Addition of sex chromosome X to male
   (B) Addition of sex chromosome
   (D) XXX chromosomes in female

6. Non disjunction is an error in
   (A) Sexdetermination
   (C) In cell division
   (B) Chromosome multiplication
   (D) In Meiosis

7. Thalasemia is due to
   (A) Organ disorientation
   (C) Aneamia
   (B) Genetic disorder in blood
   (D) Metabolic disorder

8. Haemoglobin has
   (A) 2 alpha and 2 Beta chains
   (C) 1 alpha and 1 Beta chain
   (B) 2 beta chains
   (D) 3 alpha and 1 Beta chain
9. Sickle cell anemia favours individuals living in
   (A) Endemic area of Dengue (B) Endemic area of Measles
   (C) Endemic area of Filariasis (D) Endemic area of Malaria

10. Culprit aminoacid in sickle cell anemia is
    (A) Glutamic acid (B) Phenylalanine
    (C) Aspartic acid (D) Valine

11. Polytenic chromosomes found in mosquitoes are
    (A) Malphigian tubules (B) salivary glands
    (C) Both of the above (D) Testes

12. Polytenic chromosome in man is called
    (A) Balbiani chromosome (B) Acrocentric chromosome
    (C) Metacentric chromosome (D) Lamp brush chromosome

13. Cri-du-chat syndrome is
    (A) Trisomy in 5th pair of chromosomes in man
    (B) Trisomy in 12th pair of chromosomes in man
    (C) Trisomy in sex chromosomes in man
    (D) None of the above

14. Saddle back fever is
    (A) Dengue fever (B) Malaria (C) Encephalitis fever (D) Q-fever

15. Kyasanur Forest Disease (KFD) is a
    (A) Vector borne disease (B) Airborne Disease
    (C) Waterborne disease (D) Zoonotic disease

16. Annual Blood smear Examination Rate (ABER) is an index to evaluate
    (A) Malaria Programme (B) Filaria Programme
    (C) Dengue Programme (D) Japanese Encephalitis programme

17. Expansion of NVBDCP is
    (A) National Vectorborne Disease Control Programme
    (B) National Visualborne Disorder Control Programme
    (C) National Vermiculture Disorder Control Programme
    (D) None of the above.
18. Okazaki fragments are linked by the enzyme
   (A) Helicase  (B) Topoisomerase
   (C) Ligase  (D) DNA-polymerase

19. Trisomy is represented is by
   (A) 2n-1  (B) 2n+1  (C) 02n+2  (D) 2n-2

20. Gibberellins is a
   (A) Sexchromosome  (B) Protein
   (C) Plants' growth hormone  (D) Hormone in man

21. The total amount of energy released from one molecule of glucose on oxidation is about
   (A) 1600 KJ  (B) 2300 KJ  (C) 2500 KJ  (D) 2900..kJ

22. Sperms of a man stored in
   (A) Testes  (B) Prostate gland
   (C) Epididymis  (D) Seminal vesicle

23. Who initially developed the vaccine for Rabies?
   (A) Robert Koch  (B) Joseph Lister
   (C) Louis Pasteur  (D) None of the above

24. Dengue virus belongs to
   (A) Alpha virus  (B) Casel B virus
   (C) Flavi virus  (D) None of the above

25. The method which can give skeletal model of a protein from its results, on its atomic details
   (A) Electrophoresis  (B) X-Ray crystallography
   (C) Chromatography  (D) CT-scan

26. Ranvier Node is presented in
   (A) Somatic cell  (B) Digestive cells  (C) Endocrine cells  (D) Nerve cell

27. Nissal bodies are presented in
   (A) Prokaryotes  (B) Eukaryotes
   (C) Cell body of neuron  (D) Ovarian follicles
28. Electrophoresis was discovered by
   (A) Davis  (B) Mullis  (C) Tselius  (D) Brown

29. Amebiasis is caused by
   (A) Entameoba hystolytica  (B) Plasmodium ovale
   (C) Bacillus thuringiensis  (D) Leismania donovani

30. Kala azar is caused by
   (A) Trypanosoma gambiens  (B) Entameoba gingivalis
   (C) Leismania donovani  (D) Plasmodium vivax

31. Oxentik cells of man secreting
   (A) Sulphuric acid  (B) Hydrogen peroxide
   (C) Hydrochloric acid  (D) Nitric acid

32. The daily requirement of protein is
   (A) 2gm/kg body weight  (B) 1 gm/kg body weight
   (C) 3gm/kg body weight  (D) 4gm/kg body weight

33. Trehalose is a
   (A) Monosaccharide  (B) Disaccharide
   (C) Aminoacid  (D) Protein

34. Marasmus and Kwashiorkar are due to
   (A) Carbohydrate malnutrition  (B) Protein malnutrition
   (C) Iron deficiency  (D) Calcium deficiency

35. PUFA is
   (A) Unsaturated fatty acid  (B) Fatty acid
   (C) Unlimited fats  (D) None of the above

36. Funk is associated with
   (A) Carbohydrate  (B) Protein
   (C) Amino acid  (D) Vitamins
37. Spermatheca is
   (A) A component in male reproductive system
   (B) A component in female reproductive system
   (C) A component in male reproductive system of Dipteran insect
   (D) A component in female reproductive system of Dipteran insect

38. Juvenil Hormone(JH) is a hormone of
   (A) Man  (B) Insects  (C) Cattles  (D) Plants

39. Which fish keeps the fertilized eggs guarded in its mouth
   (A) Thilapia  (B) Rohu  (C) Mirgal  (D) Platty

40. Kary Mullis is associated with
   (A) PCR    (B) Electrophoresis
   (C) Electron Microscope  (D) Chromatograph

41. Interferon is a
   (A) Protein  (B) Fatty acids
   (C) Glycoprotein  (D) Carbohydrate

42. The disease which reduces the oxygen carrying capacity of the blood and affects blood supply to various organs
   (A) Huntington Chorea  (B) Leukemia
   (C) Sickle cell anaemia  (D) A Gammaglobulinemia

43. Alkaptonurea is a
   (A) Genetic disorder  (B) Physiological disorder
   (C) Metabolic disorder  (D) None of the above

44. Phlebotomus argentipes is a vector of
   (A) Kala azar  (B) Malaria  (C) Filaria  (D) Dengue

45. Mosquitoes are
   (A) Holometabolus insect  (B) Hemimetabolus insect
   (C) Hemipteran insect  (D) Dictyopteran insect

46. DDT is
   (A) An Organo chlorine compound  (B) Organo phosphorous compound
   (C) Synthetic pyrethroid compound  (D) None of the above
47. Vector of Scrub Typhus is
   (A) Tick           (B) Trombiculid Mite
   (C) Cockroaches   (D) Sand fly

48. Silverfish is a kind of
   (A) An insect      (B) Fish
   (C) Dipteran insect  (D) Hemipteran insect

49. *Thermus aquaticus* is
   (A) Bacteria       (B) Virus
   (C) Protozoan      (D) Heat resisting Bacteria

50. Ivermectin is a choice of drug for
    (A) Malaria        (B) Filariasis
    (C) Typhus         (D) Dengue

51. Artesunate is a choice of drug for
    (A) *Plasmodium vivax*  (B) *Plasmodium falciparum*
    (C) *Plasmodium ovale*  (D) *Plasmodium malariae*

52. Proboscis is a component of mouth parts in
    (A) Insects         (B) Mosquitoes
    (C) Cockroaches    (D) None of the above

53. Loa loa is a
    (A) Filarial parasite  (B) An annelid
    (C) Arthropod        (D) None of the above

54. $10^{10}$ meter is
    (A) A micron        (B) Angstrom
    (C) Pico meter      (D) Femtometer

55. JSB-I is used in microscopy for
    (A) Malaria and Filaria microscopy  (B) Filarial parasite
    (C) Dengue virus                (D) Japanese Encephalitis
56. Polio myelitis could be spread by
   (A) An insect  (B) Flies  (C) Mosquito  (D) Tsetse Fly

57. Current Japanese Encephalitis vaccine name is
   (A) Mouse brain killed vaccine  (B) Oral JE' vaccine
   (C) Live attenuated SA 14-14-2 vaccine  (D) None of the above

58. Pulvilli is associated with
   (A) Musca domestica  (B) Anopheles Species
   (C) Culex quinquefasciatus  (D) None of the above

59. Ardeid Birds are the reservoir of
   (A) Japanese Encephalitis virus  (B) Dengue Virus
   (C) Malaria parasites  (D) Filarial parasites

60. Ecdysone is a
   (A) Moulting hormone  (B) Sex hormone
   (C) Juvenile hormone  (D) None of the above

61. Carl Von Linnaeus is associated with
   (A) Endocrinology  (B) Entomology
   (C) Taxonomy and Systematics  (D) None of the above

62. Life cycle of malaria parasite was discovered in the year of
   (A) 1888  (B) 1896  (C) 1897  (D) 1867

63. pH scale is used to measure
   (A) Acidic and alkalinity of a solution  (B) Electrolytes of a solution
   (C) Dipole of a solution  (D) None of the above

64. The vector of trypanasomiasis is
   (A) Culex species  (B) Anopheles species
   (C) Glossina palpalis  (D) Fleas

65. Fleas come under the order of
   (A) Siphonoptera  (B) Thyasura  (C) Dictyoptera  (D) Hemiptera
66. Reduvid Bug is a vector of
   (A) Kala-azar             (B) Brucellosis
   (C) Leptospirosis        (D) Chagas disease

67. Ticks and Mites belong to class
   (A) Insect.               (B) Pisces
   (C) Reptiles             (D) Arachnida

68. O₃ is
   (A) Trioxgen            (B) Inert gas
   (C) Ozone               (D) None of the above

69. Soft Ticks transmit
   (A) Q-fever              (B) Anthrax
   (C) KFD                  (D) Sleeping sickness

70. Thermal Fog is space spray for
   (A) Adult mosquito control (B) Rodent control
   (C) Cockroach control     (D) None of the above

71. Azolla is a
   (A) Biofertilizer        (B) Fertilizer
   (C) Nitrogenous compound (D) Non nitrogenous compound

72. Sibling species in mosquitoes are
   (A) Morphologically identical and genetically varied
   (B) Both morphologically and genetically varied
   (C) Only morphological variation
   (D) None of the above.

73. NS-1 antigen ELISA is diagnostic tool for
   (A) Leptospirosis        (B) JE
   (C) Q-fever              (D) Dengue fever

74. Spleenomegaly is common among children in
   (A) Malaria               (B) Filaria
   (C) Toxoplasmosis        (D) Brucellosis
75. Brectau Index is one of the evaluating tools for
   (A) Dengue  (B) Malaria
   (C) ADD  (D) None of the above

76. Essential amino acids are obtained from
   (A) Our own tissues  (B) Supplemented food
   (C) Water  (D) All of the above

77. Treponema pallidum is a causative agent for
   (A) Yaws  (B) Leprosy  (C) Syphilis  (D) Rabies

78. The communicable disease Yaws was prevalent in
   (A) America  (B) Indian subcontinent
   (C) Europe  (D) Arctic region

79. Color Blindness is due to
   (A) Defective gene present in Y chromosome
   (B) Defective gene present in X chromosome
   (C) Defective gene present in somatic cells
   (D) In Lamp brush chromosome

80. Cohort study is
   (A) An observational or descriptive analytic study
   (B) Case study of a disease
   (C) Clinical study
   (D) None of the above

81. Gambusia affinis is a
   (A) Biological Control agent to abate mosquito larvae
   (B) To control Vibrio cholerae
   (C) A kind of edible fish
   (D) Predator of cockroaches
82. Guinea worm transmission is through
(A) Unsafe drinking water  (B) Air
(C) Mosquitoes  (D) Annelids

83. Herpetology is the study about
(A) Fishes  (B) Reptiles  (C) Birds  (D) Mammals

84. Hardy Weinberg Law is related to
(A) Number Theory  (B) Population Genetics
(C) Cytology  (D) Geology

85. RAPD is the molecular technique for
(A) A study of polymorphism  (B) A study of RNA sequence
(C) A study of a Recon  (D) None of the above

86. Standard deviation is
(A) A normal distribution  (B) A measure of the concentration of frequency about the mean
(C) Median deviation  (D) None of the above

87. Lambert Beer' Law is applied in
(A) Galvanometer  (B) Perimeter
(C) Spectrophotometer  (D) Ammeter

88. Forces acting on centrifuges
(A) Centripetal force  (B) Centrifugal force
(C) Frictional force  (D) All the above

89. Osmosis is
(A) Lower concentration to higher concentration
(B) Higher concentration to higher concentration
(C) Lower to the lowest concentration
(D) All the above

90. Archimedes principle applied to find primarily
(A) Volume  (B) Density
(C) Specific gravity  (D) All the above
91. Acoustic is the study of
   (A) Sound     (B) Speed     (C) Light     (D) Heat

92. The energy available for muscular movement is
   (A) Kinetic energy    (B) Potential energy
   (C) Metabolic energy  (D) None of the above

93. Instrument which is used for humidity
   (A) Lactometer  (B) Aneamometer  (C) Hygrometer  (D) Barometer

94. Plasmolysis is
   (A) Shrinkage of cell membrane    (B) Shrinkage of protoplasm
   (C) Shrinkage of nucleus          (D) None of the above

95. Oil placed between the objective and oil immersion lens of compound microscope
   (A) To adjust reflection      (B) To adjust refraction
   (C) To adjust fine focus      (D) All the above

96. DEC mass drug administration is associated with
   (A) Malaria    (B) Filaria     (C) Dengue     (D) Goitre

97. Filarial parasite Wuchereria bancrofti is
   (A) Diurnal periodicity    (B) Nocturnal periodicity
   (C) Crepuscular periodicity (D) None of the above

98. Chloroquine drug resistance established in
   (A) Plasmodium vivax     (B) Plasmodium falciparum
   (C) Plasmodium ovale     (D) Plasmodium knowlesi

99. Cane cutter disease is a synonym of
   (A) Filariasis      (B) Plague
   (C) Leptospirosis   (D) Toxoplasmosis

100. Anthracosis is a disease of
     (A) Sand dunes workers (B) Coal miners
        (C) Gold miners     (D) Farmers