

064/23

Question Booklet Alpha Code

A

Question Booklet Sl. No.

Total Number of Questions : 100

Time : 90 Minutes

Maximum Marks : 100

INSTRUCTIONS TO CANDIDATES

1. The Question Paper will be given in the form of a Question Booklet. There will be four versions of Question Booklets with Question Booklet Alpha Code viz. **A, B, C & D**.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the Question Booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a Question Booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator **IMMEDIATELY**.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same alpha code.
6. The Question Booklet will be sealed at the middle of the right margin. Candidate should not open the Question Booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him/her contains all the 100 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the Question Booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices **(A), (B), (C)** and **(D)** having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

064/23

A

1. ICZN is applicable for
 - A) Animals only
 - B) Animals and Protists
 - C) Animals, Protists and Viruses
 - D) Animals, Protists and Bacteria

2. Retrogressive metamorphosis denotes
 - A) Development of complex adult from simple larva
 - B) Development from egg to adult with all the four stages
 - C) Development of simple adult from complex larva
 - D) Development of sexual maturity at larval stage

3. Aristotle's lantern is
 - A) Masticatory apparatus of sea urchin
 - B) Excretory organ of octopus
 - C) Rasping organ of aquatic snail
 - D) Bioluminescent organ of insects

4. Which one is habituation in case of a caged dog ?
 - A) Wagging tail to familiar visitors
 - B) Salivation at feeding time
 - C) Stop barking at a regular visitor
 - D) Become restless when not released at usual time

5. During flood, few fishes of a river were separated from the main population into a pond and subsequently established a new population there. This is an example of
 - A) Bottle neck effect
 - B) Founder effect
 - C) Peripatric effect
 - D) Natural selection

6. Which among the following is not a measure of central tendency ?
 - A) Mean
 - B) Mode
 - C) Median
 - D) Mean Deviation

7. Zoogeographically, Madagascar belongs to
 - A) Palaeartic region
 - B) Nearctic region
 - C) Oriental region
 - D) Ethiopian region

064/23

8. In the clover leaf structure of tRNA, the 3' end have the nucleotide sequence
A) CCC B) CCA C) ACC D) CAC
9. Which of the following works on Beer Lambert's law ?
1. Spectrophotometer
2. Centrifuge
3. Calorimeter
4. Electrophoresis
A) 1 and 2 B) 3 and 4 C) 2 and 3 D) 1 and 3
10. What will be the magnification of a microscope with 10x eyepiece and 40x objective ?
A) 50x B) 400x C) 4,000x D) 40,000x
11. Increased parasympathetic stimulation of the intestine would result in
A) Decreased motility
B) Increased motility and relaxation of sphincters
C) Decreased sensitivity of local reflexes
D) None of these
12. Sodium reabsorption in the DCT and in the cortical portion of the collecting system is accelerated by the secretion of
A) ADH B) Renin
C) Aldosterone D) Erythropoietin
13. Depolarization of a neuron plasma membrane will shift the membrane potential toward
A) 0 mV B) -70 mV
C) -90 mV D) -100 mV
14. IgE is involved in which type of hypersensitivity ?
A) Type I B) Type II
C) Type III D) Type IV
15. Inner membrane of mitochondria is rich in the phospholipid
A) Phosphatidylserine B) Phosphatidylinositol
C) Phosphatidylcholine D) Cardiolipin

A

16. Opsonization refers to
- A) adherence to mucosal epithelial cells
 - B) antibody-mediated viral inactivation
 - C) coating of antigens with antibody or complement
 - D) parasitic lysosomal degranulation
17. Semiconservative nature of DNA replication was proved by
- A) Meselson and Stahl
 - B) Griffith's experiment
 - C) Hershey and Chase experiment
 - D) None of these
18. Which of the following is an X-linked genetic disorder ?
- A) Sickle cell anaemia
 - B) Huntington's disease
 - C) Phenylketonurea
 - D) Haemophilia
19. Selectable markers in pBR 322 are resistance genes for
- A) Ampicillin and Tetracyclin
 - B) Chloramphenicol and Pentamycin
 - C) Neomycin and Ampicillin
 - D) Tetracyclin and Neomycin
20. Find the correct matches :
- i. Kaziranga National Park – One horned rhino
 - ii. Jim Corbet National Park – Nilgiri tahr
 - iii. Silent Valley National Park – Lion tailed macaque
 - iv. Gir National Park – Asiatic lion
- A) i and ii are correct
 - B) i, ii and iii are correct
 - C) i, iii and iv are correct
 - D) ii, iii and iv are correct
21. The highest possible vital index of a species is called
- A) Natality
 - B) Mortality
 - C) Biotic potential
 - D) Population maximum

48. Which of the following is not a member of electron transport chain of mitochondria ?
 A) Cytochrome – a B) Cytochrome – b_6 C) Cytochrome – c D) UQ
49. A dihybrid ratio that denotes supplementary gene interaction is
 A) 9 : 3 : 3 : 1 B) 9 : 7
 C) 13 : 3 D) None of the above
50. Which of the following is common for both aerobic and anaerobic respiration ?
 A) Kreb's cycle B) Glycolysis
 C) Fermentation D) None of the above
51. Length of rotation of forest crops depends upon
 i. Rate of growth
 ii. Silvicultural characteristics of the species
 iii. Economic considerations
 iv. Social conditions
 A) i and iv B) i and ii
 C) All the above D) None of the above
52. The objective of the preparation of commercial volume table for the forest trees of Kerala.
 i. To replace the practice of estimation of yield of timber and firewood based on ocular estimate, application of arbitrary conversion factors etc. by a more reliable method.
 ii. Estimation of commercial volume for 31 species.
 iii. Prepared by N. R. Nair, 1971.
 iv. Based on regression equation, $V = a + bD + cD^2$ (V – Vol. in Cu.M and D – diameter at breast height in meter).
 A) i only B) i and iii
 C) iii and iv D) All the above
53. Which among the following statements about bats are true ?
 A) Bats may play a key role in the maintenance of some cave ecosystems by bringing in an outside energy source to energy-poor, lightless caves
 B) Bats are the only true flying mammals on earth
 C) One in five mammal species is a bat
 D) All the above

62. Which among the following is true about 'musth' in elephants ?
- Musth is a disease.
 - Characterized by a large rise in reproductive hormones.
 - It actually means the elephant is healthy.
 - Characteristics of both male and female elephant.
- A) i only B) ii and iii C) iv only D) All the above
63. Point-Centred Quarter Method (PCQM) is a method used for the estimation of
- A) Animal density B) Plant density
C) Canopy cover D) None of the above
64. The lion-tailed macaque (*Macaca silenus*) is an endangered primate found in _____ National Park of Kerala.
- A) Periyar B) Eravikulam
C) Silent Valley D) Mathikettan Shola
65. Working plan maps are usually prepared in the scale
- A) 1 : 10000 B) 1 : 5000 C) 1 : 25000 D) 1 : 1000
66. What is India's Rationale behind reintroduction of Cheetah ?
- A) Enhancing Livelihood Options B) Keeping the Food Chain Intact
C) Climate Change Mitigation D) All the above
67. Pre-requisites for sustainable yield management is
- A) Coppice forest B) Complete series of age gradation
C) Rotation aged trees D) Working circle
68. Under the supervision of the Chief Conservator of Forests, working plans are prepared by the Working Plan Officers is to be revised every
- A) 5 years B) 10 years C) 11 years D) 20 years
69. Seed orchard covers which among the following criteria ?
- Plantation of genetically improved trees.
 - Isolated to reduce pollination from genetically inferior outside sources.
 - Intensively managed to produce frequent, abundant and easily harvested seed crops.
- A) i and ii B) ii and iii C) iii only D) All the above

064/23

70. Number of tiger reserves in Kerala
A) 2 B) 5 C) 4 D) 1
71. Which subject was transferred to Concurrent List from State List by 42nd Amendment Act of 1976 ?
A) Education B) Forests
C) Weights and measures D) All the above
72. Which type of forest crop raised out of shoots produced from the cut stumps of the previous crop and is beneficial in the regeneration of short rotation crops ?
A) Coppice forestry B) Selection forestry
C) Normal forestry D) Social forestry
73. The most common method of pretreatment for *Tectona grandis* seeds is
A) Drying B) Acid treatment
C) Alternate wetting and drying for 7 days D) Soaking in cold water
74. Under 'Project Elephant', the Government of Kerala notified 4 Elephant Reserves namely
A) Wayanad, Nilambur, Anamudi and Periyar
B) Wayanad, Anamudi, Agasthiyamalai
C) Chinnar, Periyar, Nilambur, Peechi
D) Chimmini, Wayanad, Aralam, Anamudi
75. World's oldest teak plantations were established at
A) Nilambur by Mr. Chathu Menon
B) Parambikulam by Smith and Graham
C) Both A and B
D) None of the above
76. Tusks of elephants are actually the overgrown
i. Incisor teeth
ii. Canine teeth
iii. Premolar teeth
iv. Molar teeth
A) Only i B) Only ii
C) Only i and iii D) Only ii and iv

A

77. Glucogenic VFA produced in rumen is
A) Butyric acid B) Propionic acid C) Lactic acid D) Acetic acid
78. The largest leukocyte in animals is
A) Monocyte B) Basophil C) Lymphocyte D) Neutrophil
79. The government of India launched the Project Tiger in the year
A) 1972 B) 1973 C) 1990 D) 1992
80. The most endangered deer species in India is
A) Eld's deer B) Barasingha C) Chital D) Sambar deer
81. Which among the following is an environmental enrichment option that can be applied in zoos ?
A) Feeding devices B) Hiding food
C) Natural vegetation D) All the above
82. Which of the following is a species endemic to Western Ghats ?
A) Nilgiri Langur B) Bonnet Macaque
C) Golden Langur D) Pig-tailed Macaque
83. Which of the following is a non-invasive diagnostic screening tool in wild animals ?
A) Endoscopy B) Biopsy
C) Infrared thermography D) All the above
84. Which of the following animal is concentrate feeder ?
A) Sambar deer B) Nilgai C) Barking deer D) Spotted deer
85. Glucanolactone oxidase enzyme is present in
A) Chimpanzee B) Orangutan
C) Loris D) Lion-tailed macaque
86. Which of the following animals are hind gut fermenters ?
i. Wild pig
ii. Elephant
iii. Rhinoceros
iv. Tapir
A) i and iii B) i and ii
C) i, iii and iv D) i, ii, iii and iv

064/23

87. Daily requirement of fresh green fodder that has to be fed to a spotted deer, of about 70 kg body weight, in captivity
A) 15 kg B) 10 kg C) 5 kg D) 2 kg
88. The species of wild animals resistant to foot and mouth disease is
A) Bovine B) Swine C) Caprine D) Equine
89. A mosquito borne viral disease affecting wild animals
A) Kyasanur forest disease B) Rift valley fever
C) Blue tongue D) Epizootic haemorrhagic disease
90. Mad itch is another name for
A) Rabies B) Pseudorabies
C) Bovine spongiform encephalopathy D) Scabies
91. Star gazing in lions is associated mainly with which of the following conditions ?
A) Calcium deficiency B) Selenium poisoning
C) Vitamin A deficiency D) None of the above
92. Ascoli precipitin test is best used for diagnosis of
A) Anthrax B) Cow pox
C) Canine distemper D) Tuberculosis
93. Which of the following reflects only the rate of disease occurrence and indicates number of new cases of a disease recorded within a specified time period ?
A) Incidence rate B) Point prevalence
C) Prevalence rate D) None of the above
94. Arboviruses are
i. Arthropod borne viruses
ii. Air borne viruses
iii. Soil borne viruses
iv. Water borne viruses
A) Only i is correct B) Only ii is correct
C) Both i and iii are correct D) All i, ii, iii, iv are correct

A

Space for Rough Work