DEPARTMENT OF EDUCATION
CENTRAL TIBETAN ADMINISTRATION, DHARAMSHALA
ENTRANCE EXAMINATION-2009.

ZOOLOGY

Time : 1 hours **Max. Marks 50.**

INSTRUCTIONS:

There are fifty questions in this paper. All the questions are of Multiple Choice type and carry equal marks. Each question is followed by four responses marked **(a), (b), (c)** and **(d).** Select the one, which is the best in each case and record it clearly against the question number on the answer sheets provided with the paper.

More than one response indicated against an item or overwriting in the answer sheet would deem as incorrect response and no mark will be granted on that.

Question paper along with the answer sheet of the paper should be returned to the invigilator after the completion of the paper or when the time is over which ever is earlier.

Roll No._____

Marks obtained by the candidate:

_____

Signature of Examiner

ZOOLOGY-2009

Q.1. Which of the following is not the locomotory organ of protozoa?

(a) Cilia
(b) Flagella
(c) Parapodia
(d) Pseudopodia

Q.2. Egg laying mammal is

(a) Armedillo
(b) Duck bill platypus
(c) Pangolin
(d) All above

Q.3. A mammalian trait without any exception is

(a) Vivipary
(b) Presence of hairs on the body
(c) Muscular diaphragm between thorax and abdomen
(d) Gill slits

Q.4. The extinct bird 'Dodo' belonged to

(a) India
(b) Australia
(c) Mauritius
(d) Indonesia

Q.5. Dengue is transmitted by

(a) Culex
(b) Male anopheles
(c) Aedes
(d) Female anopheles

Q.6. Thousand of years old mummies are still in their condition as they were before due to the non-destruction of

(a) Yellow elastin fibres
(b) White elastin fibres
(c) Collagen fibres
(d) While collagen fibres

Q.7. Tendon connects

(a) Nerve to muscle
(b) Bone to bone
(c) Muscle to muscle
(d) Bone to muscle

Q.8. Bilaterally symmetrical but acoelomate animal is

(a) Jelly fish
(b) Liver fluke
(c) Round worm
(d) Earth worm

Q.9. Which is true for animal cell?

(a) They lack cell wall

(b) They have a definite structure

(c) They have an independent structure

(d) They lack cell membrane

Q.10. Lysosomes contain

(a) Hormone (b) Lytic enzymes

(c) Hydrolytic enzymes (d) Vitamins

Q.11. The main organelle involved in modification and routing of newly synthesized proteins to their destination is

(a) Chloroplast (b) Mitochondria

(c) Lysosome (d) Endoplasmic reticulum

Q.12. Fehling's solution is used for the detection of

(a) Glucose (b) Starch

(c) All carbohydrates (d) Fats

Q.13. Enzymes, vitamins and hormones can be classified into a single category of biological chemicals because all of these

(a) Help in regulating metabolism

(b) Are exclusively synthesized in the body of a living organism as at present

(c) Are conjugating proteins

(d) Enhance oxidative metabolism

Q.14. An example of feedback inhibition is

(a) Allosteric inhibition of hexokinase by glucose-6-phosphate

(b) Cyanide action on cytochrome

(c) Sulpha drug on folic acid synthesis in bacteria

(d) Reaction between succinic dehydrogenase and succinic acid

Q.15. When synapsis is complete all along the chromosome, the cell is said to have entered a stage called

(a) Zygotene (b) Pachytene

(c) Diplotene (d) Diakinesis

Q.16. Which of the following is non-pathogenic bacteria of colon?

(a) Escherichi coli
(b) Balantidium coli
(c) Entamoeba coli
(d) Enterobius vermicularis

Q.17. Which one are bile salts?

(a) Haemoglobin and biliverdin
(b) Bilirubin and biliverdin
(c) Bilirubin and haemoglobin
(d) Sodium glycocholate and taurocholate

Q.18. The pH suitable for ptyalin (salivary amylase) action is

(a) 6.8
(b) 7.8
(c) 3.2
(d) 9.3

Q.19. The volume of air breathed in and out during effortless respiration is referred to as

(a) Vital volume
(b) Ideal volume
(c) Tidal volume
(d) Residual volume

Q.20. Blood sample of a patient reveals an unusually high quantity of Carboxyhaemoglobin content. Which of the following conclusions is most likely to be correct? The patient has inhaling polluted air containing high content of

(a) Carbon dioxide
(b) Carbon monoxide
(c) Carbon disulphide
(d) Carbon particles

Q.21. Typical 'lub-dup' sounds in heart beat are due to

(a) Closing of bicuspid and tricuspid values
(b) Closing of semi lunar valves
(c) Blood flowing through aorta by ventricule systole
(d) Closure of bicuspid & tricuspid valve followed by semi lunar valves

Q.22. In a man artificial pacemaker is implanted due to defects in

(a) SA node
(b) AV node
(c) Mitral valve
(d) Purkinje fibres

Q.23. Haemodialysis is done in the condition when a person is suffering from

(a) Diabetes
(b) Uremia
(c) Anaemia
(d) Goitre

Q.33. The number of chromosomes in a mature gamete gets halved during

(a) Formation of first polar body

(b) Formation of second polar body

(c) Division of secondary oocyte and spermatocyte

(d) Meiosis II

Q.34. Progesterone in the contraceptive pills

(a) Prevent ovulation

(b) Inhibits estrogen

(c) Check attachment of zygote to endometrium

(d) All of the above

Q.35. In sickle-cell syndrome, the amino acid substituted is –

(a) Glutamic acid by valine in α - chain

(b) Valine by Glutamic acid in α - chain

(c) Glutamic acid by valine in β - chain

(d) Valine by Glutamic acid in β - chain

Q.36. Albinism is a congenital disorder resulting from the lack of enzyme

(a) Catalase (b) Fructokinase

(c) Tyrosinase (d) Xanthine oxidase

Q.37. Temin and Baltimore are associated with the discovery of

(a) RNA synthesis (b) Transcription

(c) Reverse transcription (d) Photorespiration

Q.38. During protein synthesis in an organism at one point the process comes to halt. Select the group of three codons from the following, from which any one of the three could bring about this halt.

(a) UUU, UCC, UAU (b) UUC, UUA, UAC

(c) UAG, UGA, UAA (d) UUG, UCA, UCG

Q.39. A baby has been born with a small tail. It is a case exhibiting

(a) Reterogressive evolution (b) Mutation

(c) Atavism (d) Metamorphosis

Q.40. Convergent evolution is illustrated by

(a) Rat and dog
(b) Starfish and cuttlefish
(c) Bacterium and protozoan
(d) Dogfish and whale

Q.41. Excessive consumption of ethanol causes damage to the

(a) Liver
(b) Kidneys
(c) Lungs
(d) Heart

Q.42. Slow respiration, slow pulse and constriction of pupil occurs due to drug addiction of

(a) Morphine and opium
(b) Cocaine and heroin
(c) Alcohol and thalidamide
(d) Nicotine and caffeine

Q.43. Monosomy and trisomy can be represented as

(a) 2n+1, 2n+3
(b) 2n-1, 2n-2
(c) 2n, 2n+1
(d) 2n-1, 2n+1

Q.44. Human genome project was discovered by

(a) Francis Collins and Roderick
(b) Watson and Crick
(c) Beadle and Tatum
(d) Paul Berg and Wollman

Q.45. Transfer of DNA bands from an agrose gel to a nitrocellulose or nylon membrane is referred to as

(a) Western transfer
(b) Northern transfer
(c) Eastern transfer
(d) Southern transfer

Q.46. The presence of diversity at the junction of territories of two different habitats is known as

(a) Bottle neck effect
(b) Edge effect
(c) Junction effect
(d) Pasteur effect

Q.47. The 'blue baby syndrome' results from

(a) Excess of total dissolved solids
(b) Excess of chloride
(c) Methaemoglobin
(d) Excess of dissolved oxygen

Q.48. Which group of vertebrates comprises the highest number of endangered species?

(a) Fishes
(b) Reptiles
(c) Birds
(d) Mammals

Q.49. Animals undergo inactive stage during summer is known as

(a) Aestivation
(b) Adaptation
(c) Hibernation
(d) Acclimitization

Q.50. The name of drug used in cancer treatment produced by biotechnology is

(a) Interferon
(b) HGH
(c) TSH
(d) Humulin

<><><><><><><><><><><><><><>