

DEPARTMENT OF EDUCATION
CENTRAL TIBETAN ADMINISTRATION, DHARAMSHALA
ENTRANCE EXAMINATION-2008.

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:

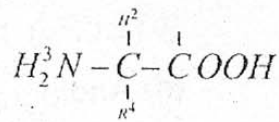
Signature of Examiner

- Q.1. The 'blue baby syndrome' results from
(a) Excess of TDS (Total dissolved solids) (b) Excess of chlorides
(c) Methaemoglobin (d) Excess of dissolved oxygen
- Q.2. Sertoli cells are involved in
(a) Excretion (b) Nutrition of sperms
(c) Respiration of sperms (d) Secretion of hormone
- Q.3. Antibodies are synthesized by
(a) Plasma B-cells (b) Phgocytes
(c) Helper – T – lymphocytes (d) Killer – T - lymphocytes
- Q.4. Bacterial transformation was first studied in
(a) Streptococcus aureus (b) Escherichi coli
(c) Diplococcus pneumoniae (d) Salmonella typhimurium
- Q.5. Mitral value in mammalian heart is situated between
(a) Pulmonary vein and left auricle
(b) Left atrium and left ventricle
(c) Right atrium and right ventricle
(d) Left ventricle and aortic arch
- Q.6. Which immunoglobulin produces immunity in infants prior to birth?
(a) IgA (b) IgD
(c) IgG (d) IgE
- Q.7. A parasite having no intermediate host is
(a) Tapeworm (b) Liverfluke
(c) Ascaris (d) Plasmodium
- Q.8. Which of the following carries absorbed nutrients from digestive tract?
(a) Hepatic artery (b) Hepatic portal vein
(c) Pulmonary vein (d) Renal artery
- Q.9. Which of the following is accumulated in human body during ketosis?
(a) Acetone (b) Beta – hydroxy butyric acid
(c) Aceto acetic acid (d) All the above

- Q.10. Lethal genes are those which cause?
(a) Death of heterozygous infants being formed
(b) Survival of the individuals in which these are present
(c) Death of homozygous infants being formed
(d) None of these
- Q.11. A cell-coded protein that is formed in response to viral infection is
(a) Antibody (b) Antigen
(c) Histone (d) Interferon
- Q.12. When a natural living predator is applied to control a pest, the process is called
(a) Genetic engineering (b) Biological control
(c) Natural control (d) Artificial control
- Q.13. Histocompatibility antigen is related with
(a) Meningitis (b) Liver cirrhosis
(c) Rejection of Grafts (d) None of these
- Q.14. Which of the following is not a water soluble vitamin?
(a) Tocopherol (b) Niacin
(c) Folic acid (d) Ascorbic acid
- Q.15. Graft between isogenic Individuals is known as
(a) Syngraft (b) Allograft
(c) Xenograft (d) None of these
- Q.16. Red tide is caused by
(a) Protozoans (B) Corals
(c) Dinoflagellates (d) Poriferans
- Q.17. Reproductive capacity in woman usually ceases in the age group 45-55 years.
This stage is called
(a) Menarche (b) Menopause
(c) Implantation (d) Gestation
- Q.18. Which organ is usually affected by aflatoxin food poisoning in humans?
(a) Heart (b) Kidneys
(c) Lungs (d) Liver

- Q.19. Which of the following association is incorrect?
- (a) Protein – Trypsin (b) Fat – Lipase
(c) Maltose – Pepsin (d) Starch – Amylase
- Q.20. Earliest fossil form in phylogeny of horse was
- (a) Meric hippus (b) Eohippus
(c) Equus (d) Mesohippus
- Q.21. Close approximation of an axon of one neuron and a dendrite of the next is termed
- (a) Junction (b) Synapsis
(c) Synapse (d) Bridge
- Q.22. Fluid mosaic model of cell membrane was proposed by
- (a) Robertson (b) Singer and Nicolson
(c) Danielli and Davson (d) Watson and Crick
- Q.23. Origin of heart beat and its conduction is represented by
- (a) A-V node – Bundle of His – S-A node – Purkinje fibres
(b) S-A node – Purkinje fibres – A-V node – Bundle of His
(c) S-A node – A-V node – Bundle of His – Purkinje fibres
(d) Purkinje fibres – A-V node – S-A node – Bundle of His
- Q.24. Blood analysis of a patient reveals an unusually high quantity of carboxy hemoglobin content. Which of the following conclusion 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) Hydrocarbons
- Q.25. Vitamin C is helpful in the
- (a) Formation of visual pigment (b) Growth of bones
(c) Treatment of pernicious anemia (d) Wound healing
- Q.26. Crossing over that results in genetic recombination in higher organisms occurs between
- (a) Nonsister chromatids of a bivalent (b) Two daughter nuclei
(c) Two different bivalents (d) Sister chromatids of a bivalent

Q.27. A peptide bond is formed between



(a) 1 and 3

(b) 1 and 2

(c) 2 and 4

(d) 2 and 3

Q.28. Which of the following is important for muscle contraction and nerve impulse transmission?

(a) Ca^{+2} ions

(b) Ca^{++} and Mg^{++} ions

(c) Mg^{++} ions

(d) Fe^{2+} and Na^+ ions

Q.29. Excessive stimulation of vagus nerve in humans may lead to

(a) Hoarse voice

(b) Efficient digestion of proteins

(c) Peptic ulcers

(d) Irregular contraction of diaphragm

Q.30. A person passes much urine and drinks much water but his blood Glucose level is normal. This condition may be the result of

(a) A reduction in insulin secretion from pancreas

(b) A reduction in vasopressin secretion from posterior pituitary

(c) A fall in the glucose concentration in urine

(d) An increase in the secretion of Glucagon

Q.31. 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.32. Sarcomere is the distance between

(a) Z line and A band

(b) Two Z lines

(c) I band and H zone

(d) A and I band

Q.33. 80% to 85% CO_2 is transported as

(a) Carbonic acid

(b) Caroxy hemoglobin

(c) Bicarbonates

(d) Carbamino compounds

Q.34. In erythroblastosis faetalis which one of these move from mother to the embryo through the placenta?

(a) Rh antigens

(b) Rh antibodies

(c) O antigens

(d) ABO antigens

- Q.35. AIDS and Hepatitis can be clinically diagnosed through
- (a) Widal Test (b) ELISA Test
(c) CT scanning (d) Angiography
- Q.36. HIV that causes AIDS, first starts destroying
- (a) Helper T-lymphocytes (b) B-lymphocytes
(c) Leucocytes (d) Thrombocytes
- Q.37. The common problems faced by the adolescents are
- (a) Acne, phobias and post traumatic stress disorders
(b) Addictive disorders
(c) Anxiety disorders
(d) Mood disorders
- Q.38. Which animal is the symbol of the world wild life fund (WWF)?
- (a) Tiger (b) Giant Panda
(c) Horn bill (d) White bear
- Q.39. Addition of a trace of thyroxin or iodine in water containing tadpole larval
- (a) Keeps them in larval stage (b) Hasten their metamorphosis
(c) Slow down their metamorphosis (d) Kills the tadpole
- Q.40. Which one is photosensitive in mammal?
- (a) Retinol (b) Rhodopsin
(c) Melanin (d) Sclerotin
- Q.41. Which of the following is warm blooded animal
- (a) Bat (b) Shark
(c) Snake (d) Lizard
- Q.42. Cheilosis disease is caused by the deficiency of
- (a) Calciferol (b) Tocopherol
(c) Riboflavin (d) Ascorbic acid
- Q.43. Which one of the following is an example of hybrid vigour or heterosis?
- (a) Horse (b) Mule
(c) Donkey (d) Neoplina

- Q.44. Kala-Azar is caused by
(a) Leishmania tropica (b) Trypanosoma gambiense
(c) Leishmania donovani (d) Leishmania infantum
- Q.45. Lack of independent assortment of two genes A and B in fruit fly *Drosophila* is due to
(a) Recombination (b) Linkage
(c) Crossing over (d) Repulsion
- Q.46. Which of the following technology uses radioactive Glucose and isotopes of carbon to reveal metabolic activity of tissues?
(a) CAT (b) PET
(c) MRI (d) None of these
- Q.47. Lichen in the pioneer vegetation in which type of succession?
(a) Hydrosere (b) Lithosere
(c) Psammosere (d) Xerosere
- Q.48. *Gambusia* is a
(a) Pest of fishes (b) Parasitic fish
(c) Predator of mosquito larvae (d) Yellow fever mosquito
- Q.49. Minimata and itai-itai disease are due to toxicity of
(a) Mercury and Tin (b) Mercury and cadmium
(c) Mercury and lead (d) Mercury and strontium
- Q.50. Adaptation to low temperature and freezing in animals occurs due to the production of
(a) Antifreeze protein (b) Proline
(c) Chaperonins (d) Aniline



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ANSWER SHEET FOR ZOOLOGY	Roll No.	
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Q.No.	Ans.	Q.No.	Ans.	Q.No.	Ans.	Q.No.	Ans.	Q.No.	Ans.
1		2		3		4		5	
6		7		8		9		10	
11		12		13		14		15	
16		17		18		19		20	
21		22		23		24		25	
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46		47		48		49		50	