

**RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE, RAHARA, KOLKATA**  
**Undergraduate Admission Test 2023: Zoology Honours**

**Full Marks : 75**

**Time : 1 hour**

1. Major haemoglobin found in adult human contains:
  - a) Two  $\alpha$ -globin and two  $\gamma$ -globin chains
  - b) One  $\alpha$ -globin and two  $\gamma$ -globin chains
  - c) Two  $\alpha$ -globin and two  $\beta$ -globin chains
  - d) One  $\alpha$ -globin and two  $\beta$ -globin chains
2. The PCR is used to
  - a) amplify a small amount of DNA
  - b) cleave bacteria plasmids
  - c) identify target plasmids
  - d) seal sticky ends
3. Biodiversity hotspots are recognized on the basis of
  - a) their proximity to national parks and reserves
  - b) the number of endemic species they contain
  - c) the degree to which the included species are threatened with extinction
  - d) both b and c
4. Organelle found in both prokaryotes and eukaryotes
  - a) mitochondria
  - b) ribosome
  - c) nucleoli
  - d) plastids
5. The ultimate source of all evolutionary variations is
  - a) sexual reproduction
  - b) hormonal actions
  - c) natural selection
  - d) mutations
6. The first law of inheritance proposed by the Mendel was
  - a) law of variation
  - b) law of segregation
  - c) law of inheritance
  - d) law of independent assortment
7. Karyokinesis is known as the division of
  - a) plastids
  - b) cytoplasm
  - c) nucleus
  - d) chromosomes
8. Which of following human parasite can enter inside the RBCs?
  - a) *Salmonella typhi*
  - b) *Plasmodium vivax*
  - c) *Wuchereria bancrofti*
  - d) *Entamoeba histolytica*

9. Which of the following codon has dual functions, as it codes for methionine, and it also acts as initiator codon?
- AUG
  - ACG
  - UAG
  - GAG
10. Which of the following is not an example of aneuploidy, *i.e.* failure of segregation of chromatids during cell division cycle results in the gain or loss of chromosome(s)?
- Sickle cell anaemia & Down syndrome
  - Hemophilia & Turner's syndrome
  - Sickle cell anaemia & Hemophilia
  - Down syndrome & Turner's syndrome
11. *Bacillus thuringiensis* forms protein crystals during a particular phase of their growth. These crystals contain a toxic insecticidal protein. This toxin not kills *Bacillus* as it exist an inactive prototoxins, but, once an insect ingest the inactive toxin, it is converted into an active form of toxin due to
- acidic pH of gut of insect
  - alkaline pH of gut of insect
  - neutral pH of gut of insect
  - surface epithelial cells of mid gut
12. ELISA is based on the principle of antigen-antibody interaction. Infection by pathogens can be detected by, I) the presence of antigens (proteins, glycoproteins etc.) II) detecting the antibodies synthesised against the pathogen
- Only I is correct
  - Only II is correct
  - Both I & II are correct
  - Both I & II are incorrect
13. Replication takes place in the 5'-3' direction. What is the direction of Transcription?
- 5'-3'
  - 3'-5'
  - Extending the 2' End
  - None of the above
14. Which hormone is known as the Birth Hormone?
- Prolactin
  - FSH
  - Oxytocin
  - Estrogen
15. ABO blood grouping system is controlled by
- Dominant gene
  - Multiple allele
  - Law of segregation
  - Epistasis

16. Which of the following organ can regenerate in Human being
- Brain
  - Heart
  - Skin
  - Lungs
17. What is the animal symbol of W. W. F (World Wildlife Fund) ?
- Red Panda
  - Giant Panda
  - Tiger
  - Kangaroo
18. High Biochemical Oxygen Demand (BOD) indicates that:
- Water is pure
  - Absence of microbial action
  - Low level of microbial pollution
  - High level of microbial pollution
19. Which feature is found in all chordates during at least some stage of life?
- Backbone
  - Vertebral column
  - Radial symmetry
  - Dorsal nerve cord
20. Which one of the following is not found in India?
- Red panda
  - Barking deer
  - Giant panda
  - Nilgiri Tahr
21. Snail population allowing speciation in islands must be of viable size because-
- Snails show low rate of gene flow
  - Gene flow within a small population leads to inbreeding
  - Speciation occurs in larger islands
  - All of the above
22. Which one of the following is correctly matched-
- Kalaazar—*Plasmodium falciparum*
  - Malaria—*Leishmania donovani*
  - Sleeping sickness—*Entamoeba histolytica*
  - Filariasis --- *Wuchereria bancrofti*
23. A jeol fish can survive outside water because -
- Very low metabolic rate
  - Presence of accessory respiratory organ
  - Can store oxygen inside body
  - Can respire anaerobically

24. Contraceptive pills or birth control pills are always containing two hormones. One of them is
- a) testosterone.
  - b) thyroxin hormone.
  - c) progesterone.
  - d) oxytocin.
25. Poison glands of snake are the modification of \_\_\_\_\_.
- a) parotids
  - b) fangs.
  - c) sub lingual.
  - d) maxillaries.
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Sample Question\_RKMVCC