

DATE:  
STD: XII

Centum Special Questions Paper 2024  
BIO-ZOOLOGY

TIME:1½ HRS  
MARKS : 35

**PART-I**

**Note: i) answer all the questions ii) choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer 8x1=8**

- Sudden appearance of vestigial organs in highly evolved organisms is called \_\_\_\_\_.  
a) homologous organs b) analogous organs c) atavistic organs d) vital organs
- \_\_\_\_\_ also known as Kornberg enzyme.  
a) DNA polymerase I b) DNA polymerase II  
c) DNA polymerase III d) DNA polymerase IV
- Which is most active during the neonatal and pre-adolescent periods..  
a) Thymus b) Bone marrow c) lymph node d) Spleen
- One of most fertile region of India which extends from eastern Rajasthan through Uttar Pradesh, Bihar and West Bengal  
a) Deccan Peninsula b) Western Ghats c) Semi-arid zones d) Indian Desert
- Mammalian egg is  
a. Mesolecithal and non cleidoic b. Microlecithal and non cleidoic  
c. Alecithal and non cleidoic d. Alecithal and cleidoic
- Down's syndrome is a genetic disorder which is caused by the presence of an extra chromosomenumber  
a) 20 b) 21 c) 4 d) 23
- The 'thickness' of Stratospheric Ozone layer is measured in/on:  
a) Sieverts units b) Dobson units c) Melson units d) Beaufort Scale
- Vaccines that use components of a pathogenic organism rather than the whole organism are called  
a) Subunit recombinant vaccines b) attenuated recombinant vaccines  
c) DNA vaccines d) conventional vaccines

**PART-II**

**Note: Answer any 4 of the questions**

**4x2=8**

- Write name of the causative agent, symptoms and incubation period of syphilis?
- Why are sex linked recessive characters more common in the male human beings?
- Define Cryptorchism?
- What are called Sacred Groves?
- Write short note *Ideonella sakaiensis*.
- Mention the Waste disposal methods of medical waste?

**PART-III**

**Note: Answer any 3 of the questions. Question No.19 is compulsory**

**3x3=9**

- What is called menstrual cycle? Mention the phases of menstrual cycle?
- Write any three the salient features of genetic code.
- Write the Salient features of mutation theory.
- Explain the Rivet Popper Hypothesis?
- Write about DNA Vaccines?

**PART-IV**

**Note: Answer all the questions.**

**2x5=10**

- Describe about any two mendelian disorders. (OR)  
Explain Hershey and Chase experiment on T<sub>2</sub> bacteriophage?
- Give an account on Amoebiasis and Kala-azar? (OR)  
Tabulate and analysis of two species population interaction.?

Prepared by Mr. R. Sivakumar