

MIZORAM PUBLIC SERVICE COMMISSION
MIZORAM CIVIL SERVICES (COMBINED COMPETITIVE)
MAIN EXAMINATION, 2023

ZOOLOGY PAPER-II

Time Allowed : 3 hours

FM : 100

Marks for each question is indicated against it.

Attempt any 5 (five) questions taking not more than 3 (three) questions from each Part.

PART - A

1. Highlight the distinguishing characteristics of cancer cells from normal cells. Describe the classifications of cancer. Add notes on carcinogens and how they cause cancer. **(6+10+4=20)**
2. What are genetic disorders and how are they caused? Write notes on the causes and characteristics of Down's syndrome, Klinefelter syndrome and Turner's syndrome. **(5+15=20)**
3. What causes double strand breaks in DNA? Elaborate on the mechanisms of double strand break repair in prokaryotes. **(4+16=20)**
4. Describe in detail the structure and components of the electron transport chain. Explain its role in ATP synthesis. **(12+8=20)**

PART-B

5. Explain with suitable diagram the structure of nephrons. Discuss the process involved in urine formation. **(8+12=20)**
6. What are neurotransmitters? Briefly explain the types and functions of neurotransmitters. Elaborate the mechanism of nerve impulse conduction through a synapse. **(2+8+10=20)**
7. Give an account of the process and hormonal regulation of spermatogenesis in mammals with suitable diagram. **(20)**
8. Discuss the various types and functions of antibodies. Give a comparative account of innate and acquired immunity. **(15+5=20)**

* * * * *