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RNLKWC/B.Sc.-CBCS/VS/ZOO/H/C12T/22

2022

Zoology

[HONOURS]

(CBCS)

(B.Sc. Fifth Semester End Examination-2022)

PAPER-C12T

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

1. Answer any five questions of the following: **5x2=10**
- What is coefficient of coincidence?
 - What do you mean by extrachromosomal inheritance? Give an example.
 - What is paramycin? Write its function.
 - What do you mean by non-sense mutation? Give an example.
 - Write difference between intergenic and intragenic interaction.
 - Write a note on Huntington's disease.
 - Differentiate between pericentric & paracentric inversion.
 - What do you mean by Philadelphia chromosome?

(2)

2. Answer any four questions of the following: **4x5 = 20**

a) What do you mean by epistasis? Discuss briefly about supplementary gene and complementary gene with example.

1+4

b) Define lethal allele. Briefly discuss about dominant lethal and recessive lethal allele.

1+4

c) Briefly discuss about sex limited and sex linked inheritance.

d) Write note on i) Ac-Ds elements

ii) P- elements. $2\frac{1}{2} + 2\frac{1}{2}$

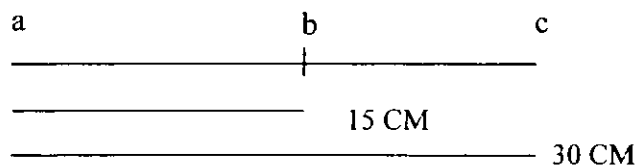
e) Briefly describe the role of 5-bromouracil in mutation of gene.

f) Write down the cause and symptoms of cri-du-chat syndrome and klinefelter syndrome.

3. Answer any one question: **1x10 = 10**

a) Describe the molecular pathway of sex determination in human.

b) Three linked recessive genes a,b,c have been mapped as follows



The coefficient of coincidence is 0.4 Calculate the sequence of phenotypes (Male & Female) Within 2000 offspring of cross.

