

C. U. SHAH UNIVERSITY

Winter Examination-2022

Subject Name : Discipline Specific Elective-I (Inheritance Biology)

Subject Code : 4SC05INB1

Branch : B.Sc. (Microbiology)

Semester: 5

Date: 23/11/2022

Time: 02:30 To 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1 Attempt the following questions: (14)

- a) Define: Allele
- b) What are the three laws of inheritance?
- c) Define a maternal effect.
- d) What is a recessiveness.
- e) Define a recombination.
- f) Crossing over occurs in which stage of meiosis?
- g) Define a transposon.
- h) What is a turner syndrome.
- i) Define: Gene mapping
- j) What is the best example of co-dominance?
- k) Define an Extra- chromosomal inheritance.
- l) What is a segregation.
- m) Who is the father of inheritance.
- n) Define a multiple allele.

Attempt any four questions from Q-2 to Q-8

Q-2 Attempt all questions (14)

- A Write a brief note on complementation test . 07
- B Write about an infectious heredity kappa particle in paramecium. 07

Q-3 Attempt all questions (14)

- A Write about a turner syndrome. 07
- B Write a detail note on maternal effect shell coilin in *Limnaea peregra* . 07

Q-4 Attempt all questions (14)

- A Write a brief note on transposition. 07
- B Write a detail note on incomplete dominance. 07



Q-5	Attempt all questions	(14)
A	Write a note on co-dominance with example.	07
B	Write about a deletion, duplication, inversion and translocation in DNA.	07
Q-6	Attempt all questions	(14)
A	Write about a homologous and non-homologous recombination.	07
B	Write a note on epistasis.	07
Q-7		(14)
	Write a detail note on linkage and crossing over.	
Q-8		(14)
	Write a detail note model's law of dominance, segregation and independent assortment.	

