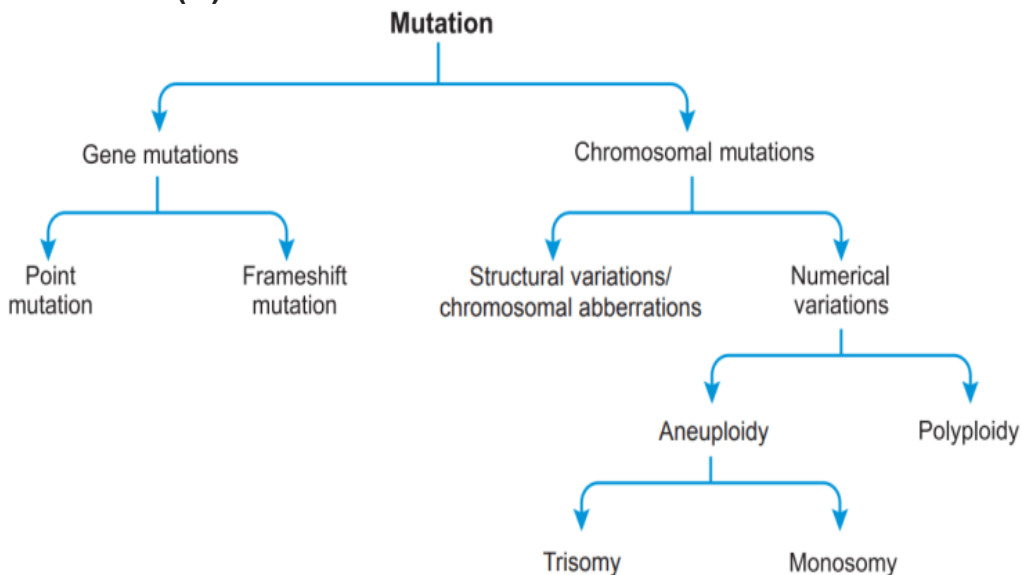


	BCM SCHOOL BASANT AVENUE DUGRI LUDHIANA XII BIOLOGY ASSIGNMENT	
	MCQ'S	
1.	In a dihybrid cross, if you get 9 : 3 : 3 : 1 ratio it denotes that (a) the alleles of two genes are interacting with each other (b) it is a multigenic inheritance (c) it is a case of multiple allelism (d) the alleles of two genes are segregating independently.	1
2	Identify the wrong statement regarding post-fertilisation development. (a) The ovary wall develops into pericarp. (b) The outer integument of ovule develops into tegmen. (c) The fusion nucleus (triple nucleus) develops into endosperm. (d) The ovule develops into seed.	1
	ASSERTION REASONING QUESTIONS	
3	Assertion: A good example of multiple alleles is ABO blood group system. Reason: When I ^A and I ^B alleles are present together in ABO blood group system, they both express their own types.	1
	COMPETENCY BASED/ CASE BASED/ SOURCE BASED QUESTIONS	
4	<p>Study the flowchart given below and answer the questions that follow.</p> <p>What is a mutagen? Name a physical factor that can be mutagen. (ii) What is point mutation? Give one example. (iii) Mention two causes of frame-shift mutation.</p>  <pre> graph TD Mutation --> Gene_mutations[Gene mutations] Mutation --> Chromosomal_mutations[Chromosomal mutations] Gene_mutations --> Point_mutation[Point mutation] Gene_mutations --> Frameshift_mutation[Frameshift mutation] Chromosomal_mutations --> Structural_variations[Structural variations/ chromosomal aberrations] Chromosomal_mutations --> Numerical_variations[Numerical variations] Numerical_variations --> Aneuploidy[Aneuploidy] Numerical_variations --> Polyploidy[Polyploidy] Aneuploidy --> Trisomy[Trisomy] Aneuploidy --> Monosomy[Monosomy] </pre>	4
5	Name the blank spaces a, b, c and d in the table given below : Item What it represents in the plant (i) Pericarp -----a (ii) -----b Cotyledon in seeds of grass family (iii) Embryonal axis----- c (iv) -----d Remains of nucellus in a seed	2
6	Mention two strategies evolved lay flowers to prevent self-pollination	2
7	Why did scientists select fruit flies for his genetics experiments?	2
	FIVE MARK QUESTION	
8	Depending upon the chemical nature of the template (DNA or RNA) and the nature of nucleic acids synthesised from it (DNA or RNA), list the types of nucleic acid polymerases.	5