

**CLASS XII CLASS TEST-2024-25****M.M 20**

<b>Q.NO</b>		<b>MARKS</b>
<b>1</b>	Conditions of a karyotype $2n \pm 1$ and $2n \pm 2$ are called (a) Aneuploidy (b) Polyploidy (c) Allopolyploidy (d) Monosomy	<b>1</b>
<b>2</b>	If a genetic disease is transferred from a phenotypically normal but carrier female to only some of the male progeny, the disease is (a) Autosomal dominant (b) Autosomal recessive (c) Sex-linked dominant (d) Sex-linked recessive	<b>1</b>
<b>3</b>	In sickle cell anaemia glutamic acid is replaced by valine. Which one of the following are triplet codes for valine? (a) GGG (b) AAG (c) GAA (d) GUG	<b>1</b>
<b>4</b>	ZZ/ZW type of sex determination is seen in (a) Platypus (b) Snails (c) Cockroach (d) Peacock	<b>1</b>
<b>5</b>	A cross between two tall plants resulted in offspring having few dwarf plants. What would be the genotypes of both the parents? (a) TT and Tt (b) Tt and Tt (c) TT and TT (d) Tt and tt	<b>1</b>
<b>6</b>	Define aneuploidy. How is it different from polyploidy? Describe the individuals having the following chromosomal abnormalities. a. Trisomy of 21st chromosome b. XXY c. XO	<b>5</b>
<b>7</b>	With the help of an example, differentiate between incomplete dominance and co-dominance.	<b>3</b>
<b>8</b>	What is recombination? Discuss the applications of recombination from the point of view of genetic engineering.	<b>2</b>
<b>9</b>	How do genes and chromosomes share: similarity from the point of view of genetical studies?	<b>3</b>
<b>10</b>	In peas, tallness is dominant over dwarfness, and red colour of flowers is dominant over the white colour. When a tall plant bearing red flowers was pollinated with a dwarf plant bearing white flowers, the different phenotypic groups were obtained in the progeny in numbers mentioned against them: Tall, Red = 138 Tall, White = 132 Dwarf, Red = 136 Dwarf, White = 128 Mention the genotypes of the two parents and of the four offspring types.	<b>2</b>