PM SHRI KENDRIYA VIDYALAYA MALKAPURAM

CLASS: XII SUB: BIOLOGY

HOLIDAY HOME WORK- HOME WORK COPY

1 What type of allele produces its effects only in homozygous individual. a) dominant, b) recessive, c) incomplete dominant, d) incomplete recessive. 1

2 Write the phenotypic ratio of di hybrid cross. 1

3 Name two organisms where males are heterogametic. 1

4 Scientific name of garden pea is _____ 1

5 Tendency of gene to link together in a same locus is called _____ 1

6 Name two Mendelian disorder that are sex- linked 1

7 Distinguish between monohybrid and dihybrid cross. 2

8 What is trisomy, Give an example. 2

9 What is co-dominance, give an example. 2

10 Write four symptomps of Turner"s syndroms. 2

11 Mentions the advantages of selecting pea plant for experiment. 3

12 What is Pedigree analysis? Write advantages. 3

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1 What are the components of a nucleoside? 1

2 Who experimentally proved the semiconservative nature of DNA replication? 1

3 How is the nitrogenenous base linked to the pentose sugar? 1

4 Which enzyme is used in the Transcription process? 1

5 Write the dual function of AUG. 1

6 Expand VNTR . 1

7 State two reasons that favour DNA to be the genetic material than that of RNA . 2

8 How are the exons different from introns? Give two points of difference. 2

9 Which strand of DNA is transcribed and Why? 2

10 Stat two functions of DNA polymerase. 2

11 Who postulated an adapter molecule to link the genetic code and the amino acids? State its two functions. 3

12 (i)What are the four levels at which gene expression is regulated in eukaryotic cell ?

(ii)Name the regulatory gene of Lac –operon . 3

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1 Who proposed that the first form of life came from pre-existing non living organic molecules? 1

2 The wing of bat is homologous to a. arm of a human b. tail of a kangaroo c. tail fin of a fish d. wing of a butterfly 1

3 Who provided experimental support for Oparin-Halden hypothesis? 1

4 Mention any one source of variation in a sexually re producing organism. 1

5 What is meant by gene pool? 1 6 Mention the two key concepts of Darwinism. 1

7 Would you consider wings of a butter fly and a bat homologous or analogous? 2

8 Birds have evolved from reptiles. How does paleontology provide evidence in support of this statement? 2

9 What is genetic variability? Name two sources of variation in the gene pool. 2

10 Differentiate between convergent and divergent evolution. 2

11 How did industrial melanism bring about natural selection? 3

12 Explain evolution of DDT resistance in mosquitoes. 3

COMPULSORY:

*** <u>RECORD & PROJECT</u>****(TO BE COMPLETED AND SUBMITTED AFTER THE VACATION)
