CLASS:XII	INDIAN SCHOOL MUSCAT SECOND PERIODIC TEST	SUBJECT: BIOLOGY
QP.NO.	VALUE POINTS	SPLIT UP MARKS
1.	a. PO₄ molecule b. Adenine/Guanine	1
2.	A segment of DNA coding for a polypeptide Chain.	1
3.	Hugo deVries	1
4.	DNA formed by combining DNA s from two different sources/ organisms.	1
5.	S-type – have smooth coat around it/ pathogenic R-type- Absent/ Non-pathogenic	2
6.	Un translated addl.sequences in mRNA required for efficient Translation process/ present at 5-end before start codon and at 3-end after stop codon.	2
7.	Analogous/convergent evolution	2
8.	Exo nuclease- removes nucleotides from the ends of DNA. Endonuclease- cut DNA at specific sites anywhere within its length.	2
9.	Agents which help in the transfer of the piece of DNA attached to it into a host organism Plasmids and Bacteriophages	2
10.	z- beta galactosidase; y- permease; -a- transacetylase 1 each OR mRNA- straight chain/ consists of series of codons each of which will code for an amino acids/ dictates the sequence of aa in pp chain. tRNA- clover leaf like/ has aa binding site and anticodon site/ carries a specific aa to the site of protein synthesis.	3
11.	This bacterium yields thermostable DNA polymerase (Taq polymerase) / is acting at higher temperature and is used for denaturation and separation of two strands of DNA. This enzyme extends the primers using the nucelotides according to genomic DNA as template. 1 mark each OR Ori- site of replication/ foreign DNA linked to it/ Supports high copy number. Selectable marker- facilitates elimination of recombinants from non-recombinants Cloning sites – recognition sites to which foreign gene is linked. 1 mark each	3