

**CHOITHRAM SCHOOL MANIKBAGH INDORE****CLASS XII Session: 2017-18****Subject: Biology****Allotment Date: 18.08.17****Assignment No: III****Submission Date: 22.08.17**

S.NO	QUESTION	MARKS	LEVEL
<b>OBJECTIVE TYPE</b>			
1.	How many base pairs are present in one turn of DNA helix and what is the distance between consequent base pairs in helix?	1	knowledge
2.	Mention two function of codon AUG.	1	understanding
3.	Calculate the length of DNA bacteriophage lambda that has 48502 base pairs.	1	hot
<b>SHORT ANSWER TYPE II</b>			
4.	(a)Name the scientist who called Trna an adaptor molecule.(b) draw a clover leaf structure of RNA showing the following: (i)Tyrosine attached to the amino acid binding site. (ii) Anticodon for this amino acid in its correct site( codon for tyrosine is UCA)	2	knowledge
5.	Explain the process of Transcription in bacterium.	2	understanding
6.	The base sequence on one of the strands of DNA is ATGTCTATA. (a)Give the base of complementary strand.(b)If a RNA strand is transcribed by this strand, what would be the base sequence of RNA (c) Differentiate between DNA and RNA	2	logic
7.	A DNA segment has a total of 1000 nucleotides, out of which 240 are adenine containing nucleotides. How many pyrimidine bases this DNA segment posses?	2	hot
8.	Explain hoe Macleod, McCarty and Avery determine the biochemical nature of molecule responsible for transforming R-strain bacteris to S-strain bacteria.	3	understanding
9.	Explain the process of DNA replication with the help of diagram. In which stage of cycle does replication occurs in Eukaryotes? What would happen if cell division is not followed after DNA replication.	3	multiconceptual
10.	According to Human genomic project almost 99.9% nucleotides bases are exactly similar in all humans. Answer the following. (a)Do you think discrimination on the basis of caste, color, creed religion is correct? Why? (b)What percent of human genome codes for protein. (c)Which chromosomes has the largest number of genes and which have fewer number.	3	value based
<b>LONG ANSWER TYPE</b>			
11.	Describe how lac operon operates both in presence and in absence of inducer n E.coli.	5	logic
12.	Forencic department was five three blood samples. Write the procedure carried out to get the DNA fingerprinting done in the above samples.	5	hot