

CHOITHRAM SCHOOL MANIKBAGH INDORE**CLASS XII SESSION: 2018-19****Subject: Biotechnology**
Allotment Date: 26/04/18**Assignment No: I**
Submission Date: 13/06/18

S.No	QUESTION	MARKS	LEVEL
OBJECTIVE TYPE			
1.	E coli cells take up foreign DNA only after heat shock followed by cold CaCl ₂ treatment. Why	1	Knowledge
2.	What is southern hybridization?	1	Understanding
3.	Write the role of enzyme alkaline phosphatase and DNA ligase in gene cloning.	1	hot
SHORT ANSWER TYPE I			
4.	When irradiated with UV light, yeast cells express proteins involved in DNA repair. Indicate which library you would use to clone the genes for these proteins and why?.	2	knowledge
5.	What do you mean by modification system in bacteria?	2	understanding
6.	Compared to a conventional plasmid, what additional sequences are required in a YAC vector so that it behaves as an artificial chromosome?	2	logic
7.	How does the relation between gene and protein can be explained?	2	Hot
SHORT ANSWER TYPE II			
8.	Explain the role of insertion inactivation in rDNA technology and how it is done?	3	understanding
9.	Describe the principle for Sanger's dideoxy sequencing procedure	3	Multi conceptual
10.	What are the principles between isoelectric focusing & SDS PAGE technique? Why is two dimensional electrophoresis better than one dimensional electrophoresis?	3	Value based
LONG ANSWER TYPE			
11.	Draw a labeled diagram of Mass Spectrophotometer. Explain ionization methods that are required for examination of molecules?	5	Logic
12.	What is PCR. Write its working mechanism and application?.	5	Hot