

U.G. 4th Semester Examination - 2021
Molecular Biology & Biotechnology
[HONOURS]
Course Code : MBBT-401-P-CCR-8
(Molecular Biology)
[PRACTICAL]

Full Marks : 20

Time : 2 Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **one** of the following: 10×1=10
 - a) How will you isolate Plasmid DNA by alkaline lysis method? Write the principle behind this experiment. How will you detect the plasmid DNA on an agarose gel? How many bands of plasmid DNA will you get if you are successful in isolating intact plasmid DNA? 3+3+2+2
 - b) How genomic DNA can be isolated from bacteria? Write the principle of the experiment. Why 0.8% agarose gel is used for detection of genomic DNA? What will you find on the gel if your genomic DNA is sheared and contaminated with RNA? 3+3+2+2

[Turn over]

- c) What type of restriction enzyme will you use to digest genomic DNA in order to obtain sticky ends? Write the principle behind this experiment. What are the samples you will load in the agarose gel to separate and identify the DNA fragments of your interest and why?

1+4+5

2. Lab note book 5
3. Viva voce 5
