

U.G. 3rd Semester Examination - 2021
Molecular Biology & Biotechnology
[HONOURS]

Generic Elective Course (GE)
Course Code : MBG 101-P-CC-1
[PRACTICAL]

Full Marks : 20

Time : 2 Hours

The figures in the right-hand margin indicate marks.

Answer all the questions.

1. Perform any **one** of the following experiments:

- a) How do you prepare 50 ml of phosphate buffer (0.1M) having pH 7.0? Write down the principle, requirements, procedure and observation of your experiment.

3+2+4+1=10

- b) How can you estimate the concentration of a protein present in the supplied sample(A)? Write down the principle, requirements, procedure, observation and inference of your experiment from an assumed data.

3+2+2+2+1=10

- c) How can you estimate the concentration of total sugar present in the supplied sample (B)? Give

[Turn over]

the detail account of the principle, requirements, procedure, observation and inference of your experiment from an assumed data.

3+2+2+2+1=10

- d) How can you determine the concentration of reducing sugar present in the supplied sample (C)? Discuss the principle, requirements, procedure, observation and inference of your experiment from an assumed data.

3+2+2+2+1=10

- e) How can you identify the unknown amino acid (D) by paper chromatography using at least two known amino acids? Give the detailed account of the principle, requirements, procedure and observation of your experiment. Calculate the R_f value of the unknown amino acid from an assumed data.

3+2+2+1+2=10

- f) How can you identify the biomolecules (sugar/ amino acid/lipid) present in the sample (E)? Write down the detailed procedure, observation and inference of your experiment from an assumed data.

4+4+2=10

2. Laboratory Note Book. 5
3. Viva-voce. 5