

U.G. 1st Semester Examination - 2020
Molecular Biology and Biotechnology
[HONOURS]
Course Code : MBBT-H-102-P-CCR2
(Cell Biology)
[PRACTICAL]

Full Marks : 20

Time : 2 Hours

The figures in the right-hand margin indicate marks.

1. Attempt any **one** question from the following: 10
 Write down the principle, procedure of the study about the effect of temperature and organic solvents on the permeability of supplied cell membrane. Analyze the result by taking into consideration some assumed data and draw conclusion if any.

OR

Write down the principle, procedure on the *Rhoeo* leaf plasmolysis experiment. What will be your observation and conclusion from the experiment?

OR

Write down the principle, procedure on the organelle isolation through cell fractionation method and assay any of the marker enzyme by

using supplied sprouted seed and conclude by considering some assumed data.

OR

Write down the principle and procedure of double staining method of any one of the animal organ (liver/ oesophagus/ stomach/ pancreas/ intestine/ kidney/ ovary/ testes) and write down their identifying features based on this staining process.

OR

Write down the principle and staining procedure of temporary preparation of root tip of Onion for mitotic cell division. Draw the figures of all the stages as per microscopic view. Why HCl is applied during hydrolysis in staining procedure? Draw and point out the structural differences between a Prokaryotic and a eukaryotic one.

OR

Draw and write down the characteristic features of different stages of first meiotic cell division including the mode of Chiasma initiation and completion of Grasshopper testis. How can you differentiate meiosis I and II under microscope? Explain with a suitable diagram.

2. Lab Note Book/ Online submission of practical based home assignments. 5
3. Viva-voce / Continuous internal evaluation. 5

[Turn Over]