B.sc. SEM V
BOT-A
CC 11-P (Cell and Molecular Biology)
Practical Examination
2021-22

Time: 1 hr 30 min **FM 30**

Answer the following questions:

1. a. What is micrometry? 2
    b. What is the value of one division of stage micrometer? 1
    c. Write the calibration method (formula) of micrometry. 3
    d. Write down the calculation procedure for counting number of cells/ ml of suspension using haemocytometer. 4

2. a. Write the composition of pyronine-methyl green stain. 3
    b. Write down the observation of DNA- pyronine-methyl green staining. 2
    c. What is the full form of DPA stain? 1
    d. How do you prepare fresh DPA reagent? 2
    e. Write down the principle to calculate the amount of DNA content of a sample using DPA staining? 2

3. a. What are the chemical requirements to study the nucleolar frequency? 2
    b. Calculate the necleolar frequency from the following data 5

Observation	No of cells / microscopic field	No of nucleolus	necleolar frequency
1	50	24	?
2	55	28	
3	49	26	
4	47	21	
5	59	33	

    c. Write the principal of RNA estimation through orcinal method 3