

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai — 600 044.

M.Sc.(PBPBT) - END SEMESTER EXAMINATIONS APRIL - 2023

SEMESTER - II

**20PPBCT2005 - Cell Biology**

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

### **Section B**

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. Illustrate the process of Facilitated Diffusion in plasma membrane with example.
2. Explain the structure and functions of peroxisomes.
3. Compare the passive movement of plasma membrane with active movement.
4. Classify ribosomes based on their structural components.
5. Describe the structure of chloroplast with diagram.
6. Relate mitosis with meiosis.
7. Explain the components of eukaryotic nucleus at interphase of cell.
8. Distinguish heterochromatin with euchromatin.

### **Section C**

I - Answer any **TWO** questions ( $2 \times 10 = 20$  Marks)

9. Describe the fluid mosaic model of plasma membrane proposed by Singer and Nicolson (1972).
10. Relate the structure & functions of Smooth Endoplasmic Reticulum with Rough Endoplasmic Reticulum.
11. Ascertain the techniques involved in chromosome identification.
12. Mitosis is a process of nuclear division. What do you infer from above statement?

II - Compulsory question ( $1 \times 10 = 10$  Marks)

13. Mitochondria act like power house of cell. Justify.

\*\*\*\*\*

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai — 600 044.

M.Sc.(PBPBT) - END SEMESTER EXAMINATIONS APRIL - 2023

SEMESTER - II

**20PPBCT2005 - Cell Biology**

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

### **Section B**

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. Illustrate the process of Facilitated Diffusion in plasma membrane with example.
2. Explain the structure and functions of peroxisomes.
3. Compare the passive movement of plasma membrane with active movement.
4. Classify ribosomes based on their structural components.
5. Describe the structure of chloroplast with diagram.
6. Relate mitosis with meiosis.
7. Explain the components of eukaryotic nucleus at interphase of cell.
8. Distinguish heterochromatin with euchromatin.

### **Section C**

I - Answer any **TWO** questions ( $2 \times 10 = 20$  Marks)

9. Describe the fluid mosaic model of plasma membrane proposed by Singer and Nicolson (1972).
10. Relate the structure & functions of Smooth Endoplasmic Reticulum with Rough Endoplasmic Reticulum.
11. Ascertain the techniques involved in chromosome identification.
12. Mitosis is a process of nuclear division. What do you infer from above statement?

II - Compulsory question ( $1 \times 10 = 10$  Marks)

13. Mitochondria act like power house of cell. Justify.

\*\*\*\*\*