

Shikshan mandal karad's  
**Mahila Mahavidyalaya ,Karad**  
B.Sc.- (Part-I ) (Preliminary-I) Examination  
DSC-14A Botany-I  
Cell Biology

**Day /Date : Friday – 06/01/2023**

Time-1:00pm to 3:00pm

Total marks -40

- Instructions- 1) All questions are compulsory  
2) Figures to the right indicates full marks  
3) Draw neat and labelled diagrams

**Q.1 A) Choose the correct alternative.**

**[8]**

- a) Electron microscope uses \_\_\_\_\_ as the illuminating source.  
i) sunlight                                  ii) violet rays  
iii) Blue colour light                  iv) electron beam.
- b) Eukaryotic cell has a definite \_\_\_\_\_.  
i) cell wall                                  ii) cell structure  
iii) nucleus                                  iv) cell membrane.
- c) Mitochondria is the \_\_\_\_\_ of the cell.  
i) cell wall                                  ii) power house  
iii) cell structure                          iv) cell membrane .
- d) chromatography is well known technique for \_\_\_\_\_ of compound .  
i) collection                                  ii)filtration  
iii) separation                                  iv) mixing
- e) meiosis is a \_\_\_\_\_ cell division .  
i)complex                                  ii)simple  
iii) difficult                                  iv) separate.
- f) The compound microscope is an optical instrument to \_\_\_\_\_ objects.  
i)smaller                                  ii) magnify  
iii) different                                  iv) Separation

g) TLC Chromatography is long form \_\_\_\_\_.

- i) Tall long Chromatography      ii) Thin layer Chromatography
- iii) Tube Long Chromatography    iv) None of these

h) Karyokinesis means division of \_\_\_\_\_.

- i) Nucleus                                  ii) cell membrane
- iii) cell                                        iv) cell wall

**Q.2) Attempt any Two of the following**

**[16]**

- a) Explain in detail the process of Mitosis and give its significance.
- b) Explain in detail the process of Meiosis and give its significance.
- c) Write in detail Electron Microscope, give its application along with diagram.

**Q3) Attempt any Two of the following**

**[16]**

- a) What is difference between Prokaryotic and Eukaryotic cell.
- b) Write a note on Endoplasmic Reticulum.
- c) Write a note on Mitochondria with functions.
- d) Give applications of Paper Chromatography.
- e) Give the uses of Compound Microscope and Electron Microscope.
- f) Write a note on lysosomes.

Shikshan Mandal Karad's  
**Mahila Mahavidyalaya ,Karad**  
B.Sc.-I Preliminary-I Examination  
DSC-14A Botany-II (CBCS)

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Total marks -40

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3)Draw neat and labelled diagrams

**Q.1 A) Choose the most correct alternative.** [8]

- a) Electron microscope uses \_\_\_\_\_ as the illuminating source.  
i) sunlight    ii) violet rays  
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- d) chromatography is well known technique for \_\_\_\_\_ of compound .  
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- e) meiosis is a \_\_\_\_\_ cell division .  
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- f)The compound microscope is an optical instrument to \_\_\_\_\_ objects.  
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- h) Karyokinesis means division of \_\_\_\_\_.

- i) Nucleus                                  ii) cell membrane
- iii) cell                                        iv) cell wall

**Q.2) Attempt any Two of the following [16]**

- a) Explain in detail the process of Mitosis and give its significance.
- b) Explain in detail the process of Meiosis and give its significance.
- c) Write in detail Electron Microscope, give its application along with diagram.

**Q3) Write short notes on the following (any 4) [16]**

- a) What is difference between Prokaryotic and Eukaryotic cell.
- b) Write a note on Endoplasmic Reticulum.
- c) Write a note on Mitochondria with functions.
- d) Give applications of Paper Chromatography.
- e) Give the uses of Compound Microscope and Electron Microscope.
- f) Write a note on lysosomes.