



I. Answer any of the following

1*3 = 3

1) During Metaphase – 1 of Meiosis homologous chromosome pairs arrange themselves on the equatorial plate. How many Metaphasic (equatorial) plates are typically formed during this stage ?

- a) 1 b) 2 c) 4 d) None

2) Bell jar experiment was conducted by

- a) Joseph Priestly b) Cornelius c) Engelmann d) Julius von Sachs

3) X-shaped structures are called

- a) Bivalent b) Diplotene c) Chiasmate d) Interphase

II. Fill in the blanks By Choosing appropriate answer given in those brackets

1*2 = 2

(By making cell plate, Kranz anatomy Bundle sheath cells, Mesophyll cells, By Furrow)

4) The particularly large cells around the vascular bundles of the C_4 plants called as _____ and the leaves which have such anatomy are said to have _____

5) The cells will divide by following cytokinesis in plants _____

III. Answer the following questions

2*2 = 4

6) Define Quiescent stage (Go)

7) What are the factors affecting photosynthesis and who proposed it and when

IV. Answer any two of the following questions

3*2 = 6

8) Write a Note on interphase

9) Explain the phases of Mitosis

10) Explain about splitting of water

11) Draw a schematic representation of Chemiosmotic hypothesis

V. Answer any four of the following questions

5*4 = 20

12) Explain Hatch Slack with neat labelled diagram

13) Explain cyclic and non cyclic Photophosphorylation with neat schematic representation.

14) What are the Significance of Mitosis and Meiosis

15) Name and explain the phases of Prophase-1

16) a) Explain about Calvin-cycle

3M

b) Show the graph of the absorption spectrum of chlorophyll a, b Carotenoids

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