

I. Answer the following questions:

1. The profits of a firm diminishes when ----- exceeds ----- (1)

- a) Marginal Revenue, Marginal Cost
- b) Marginal Cost, Marginal Revenue
- c) Marginal Revenue, Average Cost
- d) Average Revenue, Average Cost

2. If MC is more than MR at a particular level of output, then how will a producers react maximize the profits? (1)

3. The following table shows the total cost schedule of a competitive firm. It is given that the price of the good is ₹10. Calculate the profit at each output level. Find the profit maximising the level of output (3)

Quantity sold	0	1	2	3	4	5	6	7	8	9	10
TC in(₹)	5	15	22	27	31	38	49	63	81	101	123

4. In the union budget, the excise duty on tea was reduced from ₹2 per Kg to ₹1 per Kg. All other things remaining unchanged. How will it affect the market price of tea? Use Diagram. (4)

5. Explain the effects of a “Price Ceiling”. (4)

6. Explain the condition of producer’s equilibrium under perfect competition. (6)

7. Market for a good is in equilibrium. Ther is ‘decrease ‘in demand’ for this good. Explain the chain of effects of this change. Use Diagram. (6)

I. Answer the following questions:

1x5=5

1. Give the name of phase between the two successive mitotic divisions?
2. The complex formed by a pair of synapsed homologous chromosomes is called as -----  
 a) Bivalent                      b) Trivalent  
 c) Tetravalen                      d) None of these
3. What is equational division?
4. What is karyokinesis?
5. During which phase of mitotic cell division, chromosomes gets separated? a) Metaphase b) Anaphase c)Prophase d) Telophase

## SECTION-B

II. Answer the following questions in short:

2x3=6

6. Name the stage of cell cycle at which one of the following events occur?  
 i) Chromosomes move to spindle equator.  
 ii) Centromere splits and chromatids separate.
7. What is quiescent stage of cell cycle?
8. Why is mitosis called equational division? (OR)  
 Mention the significance of meiosis.

## SECTION-C

III. Answer the following questions in brief:

3x3=9

9. Draw a neat diagram of the following:  
 i) Metaphase-II                      ii) Prophase II                      iii) Anaphase – II
10. In which phase of meiosis are the following formed?  
 i) Synaptonemal complex  
 ii) Recombination nodules  
 iii) Termination of chiasmata  
 iv) kinetochores  
 v) Dissolution of the synaptonemal complex
11. Write short notes on the following:  
 a) Synapsis    b) Bivalent    c) Chiasmata                      (OR)

Why is mitosis known as equatorial division while meiosis is known as reduction division?

## SECTION-D

IV. Answer the following question in detail:

5x1=5

12. Explain meiosis –II in an animal cell                      (OR)

What is cell cycle? Explain cell cycle and interphase in detail.