



- KEEPING MOBILE PHONE/ELECTRONIC GADGETS, EVEN IN 'OFF' POSITION IS TREATED AS EXAM VIOLATION
  - DON'T WRITE ANYTHING ON THE QUESTION PAPER
- General Instructions :
1. Non Programmable calculator is permitted.
  2. Draw the diagrams wherever required and label the axis properly.
  3. Avoid bullet points.

Answer ALL Questions  
(10 X 10 = 100 Marks)

1. How a duopoly market is different from oligopoly market? Find the Cournot equilibrium quantity of output produced by a firm under duopoly and the market price of the product when (inverse) market demand function is  $P = 800 - Q$  and  $MC = 40$ .
2. Outline the concept of pareto optimality with appropriate illustration.
3. Discuss the law of equi-marginal utility with a suitable numerical example.
4. What is the Marginal Rate of Technical Substitution (MRTS)? Illustrate the concept with the help of a schedule and graph.
5. Graphically illustrate the case of a perfectly competitive firm that move from a normal profit condition to super normal profit in the short run. Provide a note on the conditions of these transitions using revenue and cost concepts.
6. Production function of a firm is given as  $Q = L^{1/3}K^{1/3}$ . Wage rate is \$ 10, rate of interest is \$ 20, and budget of the producer is \$ 240. Find the optimum quantities of Labour (L) and Capital (K) using Lagrange method.
7. Using the following Total Cost (TC) and Total Revenue (TR) function, establish the point of break even. Graphically illustrate the concept of margin of safety.  
Total Revenue =  $200Q$   
Total Cost =  $1600 + 400Q$   
Why TC curve start from a positive number?
8. A producer reduced price of a product from \$ 200 to \$ 150 to attract more consumers. As a result, the demand increased from 500 to 800. Calculate the price elasticity of demand using mid-point method.
- 9.a) Compare and contrast microeconomics and macroeconomics.  
**OR**
- b) Compare and contrast the major definitions of economics.
- 9.a) Explain the concept of budget line with a suitable example. Illustrate the changes in budget line due to changes in income and price?  
**OR**
- b) Discuss the relationship between various short run costs with the help of an appropriate schedule and diagram.

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