4ᵗʰ Semester Back Examination: 2023-24
Engineering Economics
CIVIL,CSE,EEE,ELECTRICAL,MECH
Time : 3 Hour
Max Marks : 100
Q. Code : P483
Answer Question No.1 (Part-1) which is compulsory, any eight from Part-II and any two from Part-III.
The figures in the right hand margin indicate marks.

Part-I

Q1 **Answer the following questions:** (2 x 10)

a) Give three reasons for a shift in the demand curve
b) Define elasticity of demand
c) What do you mean by short-run production function?
d) Define "Break-even Point"
e) What are the two essential functions of a bank?
f) What is cost-push inflation?
g) What is the effective interest rate?
h) What is annuity?
i) Define IRR.
j) Define Depreciation.

Part-II

Q2 **Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)** (6 × 8)

a) Distinguish between a movement along a supply curve and shift in the supply curve. What are the factors which cause in the shift in the supply curve?
b) What are the different types of price elasticity of demand? Explain with diagrams and examples.
c) Explain three stages of production in the short-run.
d) If the demand and supply curve for the mobile phones are Qd = 100-6P, Qs = 28+3P, what is the quantity of mobile phones bought and sold at equilibrium?
e) Differentiate between perfect competition and monopoly form of market.
f) Explain the concept "Fixed Cost" and "Variable Cost" through the graph.
g) What is the P/ V ratio? What are the various applications of P/V ratio?
h) Define central banking and distinguish this concept from that of commercial banking.

i) A project has an initial cost of Rs.100, 000 and uniform annual benefits of Rs.12, 500. At the end of its 8-year useful life, its salvage value is Rs. 30,000. What is the net present worth of the project at an interest of 10 percent compounded annually?

j) A person deposits a sum of Rs. 1, 00,000 in a bank for his son's education who will be admitted to a professional course after 6 years. The bank pays a 15% interest rate, compounded annually. Find the future amount of the deposited money at the time of admitting his son in the professional course.

k) What are the two basic methods of depreciation? Explain by giving examples.

l) What are the various causes of depreciation?

Part-III
Only Long Answer Type Questions (Answer Any Two out of Four)

Q3 Explain the law of Demand. What are its limitations? **(16)**

Q4 What are the features of perfect competitions? How equilibrium price is determined under perfect competitions? **(16)**

Q5 Explain the term "Break-even Analysis" and discuss its usefulness. Calculate the break-even point from the following data. **(16)**
Sales: 550 units
Sales Receipts : Rs.28,875
Total Fixed Costs : Rs. 16,000
Total Variable Costs: R. 11,000

Q6 Alpha Industry is planning to expand its production operation. It has identified three different technologies for meeting the goal. The initial outlay and annual revenues with respect to each of the technologies are summarised in the table given below. Suggest the best technology which is to be implemented based on the present worth method of comparison assuming 20% interest rate, compounded annually. **(16)**

	Initial outlay (Rs.	Annual revenue (Rs.)	Life (Years)
Technology 1	12,00,000	4,00,000	10
Technology 2	20,00,000	6,00,000	10
Technology 3	18,00,000	5,00,000	10