PRESIDENCY UNIVERSITY
BENGALURU

SET-A

SCHOOL OF ENGINEERING
END TERM EXAMINATION – MAY/JUNE 2024

Semester : Semester IV - 2022
Course Code : MGT2015
Course Name : Engineering Economics
Program : B.Tech.

Date : June 7, 2024
Time : 9.30 AM – 12.30 PM
Max Marks : 100
Weightage : 50%

Instructions:
(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ANY TEN QUESTIONS (10 Q X 2 M = 20 M)

1. What are the Strategic Engineering Economic decisions?

(CO1) [Knowledge]

2. Give the meaning of Movement along the supply curve and Shift of the supply curve.

(CO2) [Knowledge]

3. What are the determinants of demand?

(CO2) [Knowledge]

4. State the meaning of Movement along the demand curve and Shift of the demand curve.

(CO2) [Knowledge]

5. Give the meaning of Cross Elasticity of demand

(CO2) [Knowledge]

6. Define Micro Economics? How it is different from Macro Economics?

(CO1) [Knowledge]

7. Write a note on Break Even Point

(CO3) [Knowledge]

8. What do you understand by equilibrium price?

(CO4) [Knowledge]

9. What do you mean by Fiscal Policy?

(CO5) [Knowledge]

10. Draw a Break Even Chart and name the different parts

(CO3) [Knowledge]

11. State Laws of Returns to scale

(CO3) [Knowledge]

12. In the short run some cost curves are "U" shaped? Why?

(CO3) [Knowledge]

13. Define Payback period

(CO4) [Knowledge]

14. Differentiate between AFC and AVC.

(CO3) [Knowledge]

PART B

ANSWER ANY EIGHT QUESTIONS   (8 Q X 5 M = 40 M)

15. Fiscal Policy and Monetary Policy are the two important economic tools for any country.Diffenrentiate between these two.

(CO5) [Comprehension]

16. If the demand and supply curve for computers is D=100-6P, S=28+3P, where P is the price of computers. What is the quantity of computers bought and sold at equilibrium?

(CO3) [Comprehension]

17. Briefly explain any five principles of engineering economics.

(CO1) [Comprehension]

18. Which among the following belongs to luxury good?

INCOME	QUANTITY DEMANDED OF PRODUCT 'A'	INCOME	QUANTITY DEMANDED OF PRODUCT 'B'	INCOME	QUANTITY DEMANDED OF PRODUCT 'C'
400	25	2000	4	1000	500
500	40	2400	5	1100	550

19. Explain the different types of income elasticity of demand with example.

(CO2) [Comprehension]

20. Which product among the following has relatively elastic demand?

PRICE OF PRODUCT 'A'	QUANTITY DEMANDED	PRICE OF PRODUCT 'B'	QUANTITY DEMANDED	PRICE OF PRODUCT 'C'	QUANTITY DEMANDED
10	100	10	100	10	100
5	150	15	20	5	100

(CO2) [Comprehension]

21. What is cross elasticity of demand? Would you expect the cross elasticity of demand to be positive, negative or zero for each of the following pairs of products?
Caterpillar cranes and JCB cranes
Generator and Diesel
Joy ice cream and Men's socks.

(CO2) [Comprehension]

22. Cost analysis plays an important role in various business decisions. Explain how Marginal cost is different from Average cost with your own example.

(CO4) [Comprehension]

23. If you deposit Rs.3000 in an account that pays 10% interest, compounded annually, how much will you have at the end of 1 year? 2 years? And 3 years?

(CO4) [Comprehension]

24. The classic economic resources include land, labour, capital and entrepreneurship. Justify your answer with respect to factors of production.

(CO3) [Comprehension]

25. Explain Law of Variable Proportion. State which stage you prefer and why?

(CO3) [Comprehension]

26. Draw circular flow of income in a four sector and give the meaning of 'leakage' and 'injection'

(CO1) [Comprehension]

PART C

ANSWER ANY FOUR QUESTIONS (4 Q X 10 M = 40 M)

27. A) The price of pens decreases from Rs.2.00 to Re.1.00 and the quantity demanded for pen increases from 40 to 50 pens. Calculate the price elasticity of demand and comment on the nature of elasticity.

B) if the income increases from Rs.1000 to Rs.2000 and the quantity demand for the product Increases from 20 to 30 units. Calculate income elasticity and comment on the nature of Product.

(CO4) [Application]

28. The cash flows of project A and B are given hereunder. If the discount rate is 10% calculate pay back period. Which project you choose? (CO4)[Application]

YEAR	CASH FLOWS (Rs.)	CASH FLOWS (Rs.)
0	-1000	-1000
1	500	100
2	400	300
3	300	400
4	100	600

(CO3) [Application]

29. The cash flows of the two projects of Galantac company is given below. The company is faced with the situation of choosing between the two. Find out the Net Present Value (NPV) of these projects at 8% discount Rate and indicate which project is preferred. Also calculate Internal Rate of Return (IRR) for project Boeing (discount range from 13% to 15%.)

YEAR	PROJECT "AIRBUS' CASH FLOWS	PROJECT "BOEING" CASH FLOWS
0	-240000	-240000
1	120000	70000
2	100000	70000
3	70000	70000
4	20000	70000
5	10000	70000

(CO4) [Application]

30. Production cost and Cost analysis is helpful in various ways to a business firm. Fill up the blanks in the following table:

UNITS OF OUTPUT	TOTAL FIXED COST (TFC)	TOTAL VARIABLE COST (TVC)	TOTAL COST (TC)	AVERAGE FIXED COST (AFC)	AVERAGE VARIABLE COST (AVC)	AVERAGE COST (AC)	MARGINAL COST (MC)
20	1500		1700	10	85		000
50	1500	500		30			300
100	1500	900					400
200	1500	1500	3000				

(CO4) [Application]

31. Impala Engineering Works Pvt. Ltd. are producing a small component and they provide the following data:Selling Price per unit Rs.40

Variable cost per unit Rs.24

Fixed cost   Rs.16,000

You are required to calculate i) Break Even Point in physical units and in sales value.

                         ii) Show the amount of Variable cost at BEP

                         iii) Profit made by the company at 5000 units.

                                                      (CO4) [Application]

32. Calculate Net Present Value for the following two projects. The firm anticipates its cost of capital to be 10%. Suggest which project is preferable.   (C

YEAR	PROJECT 'A' CASH FLOWS (Rs.)	PROJECT 'B' CASH FLOWS (Rs.)
0	(2,00,000)	(2,00,000)
1	35,000	2,18,000
2	80,000	10,000
3	55,000	10,000
4	75,000	4,000
5	20,000	3,000

                                                     (CO4) [Application]