	Utech
Name:	
Roll No.:	The Grant of Samueley and Sandard
Invigilator's Signature :	

ENGINEERING ECONOMICS

Time Allotted: 3 Hours Full Marks: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP - A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following :

 $10 \times 1 = 10$

- i) If the cross elasticity of demand is negative then the commodities are
 - a) Giffen

- b) Substitutes
- c) Complements
- d) Normal.
- ii) For a unitary elasticity of demand curve, the amount spent by a consumer on a good
 - a) remains constant when price changes
 - b) increases when price changes
 - c) decreases when price increases
 - d) decreases when price decreases.

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- iii) When P_1 rises or falls, consumer will respond by changing his demand for q_1 . The part of this change that is refereed to as the 'substitution effect' represents the consumer's response to
 - a) the change in high money income
 - b) the change in selective goods prices
 - c) the change in his real income
 - d) an induced change in his preferences.
- iv) If a firm moves from one point on a production isoquant to another, which of the following will not happen?
 - a) A change in the ratio in which the input are combined
 - b) A change in the marginal produtes of the inputs
 - c) A change in the rate of technical substitution
 - d) A change in the level of output.
- v) When total product is maximum, marginal product is
 - a) zero

b) maximum

c) constant

d) none of these.

- vi) Market demand is
 - a) the sum of all individual demands
 - b) demand at prevailing average prices
 - c) ability to pay the price asked
 - d) demand in a perfectly free market.

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- vii) A perfectly competitive firm is oprating in an output level where price is greater than marginal cost. Which of the following is true?
 - a) The firm increases output to maximize profit
 - b) The firm is incurring loss
 - c) The firm reduces output to maximize profit
 - d) The firm is neither making profit nor loss.
- viii) Monopolistic competition can be characterized by a
 - a) small no. of firms and product homogeneous
 - b) large no. of firms and product differentiation
 - c) large no. of firms and product homogeneous
 - d) single firm and product differentiation.
- ix) Balance of payment is maintained in
 - a) dual entry system b) single entry syste
 - c) both (a) and (b) d) none of these.
- x) In order to control inflation RBI
 - a) decreases CRR b) increases CRR
 - c) does not change CRR d) decreases SLR.

- xi) Which would not be characteristic of a capitalis economy?
 - a) Government ownership of the means of production
 - b) Competition and unrestricted markets
 - c) Reliance on the market system
 - d) Free enterprise and choice.
- xii) Indian Public Sector Banks are nationalized in the year
 - a) 1969

b) 1970

c) 1948

d) 1951.

GROUP - B

(Short Answer Type Questions)

Answer any three of the following.

 $3 \times 5 = 15$

- Differentiate between the shapes of Short-run and Long-run Costs of a firm.
- 3. What is meant by break-even analysis? What is Margin of Safety? How an increase in price changes the break-even level of output?
- 4. Explain various kinds of price discrimination.
- 5. Define the concept of GDP and GNP. Give example.
- 6. State the inpact of globalization on Indian economy.

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(Long Answer Type Questions)

Answer any three of the following.

 $3 \times 15 = 45$

7. a) On the basis of information given in the following table, prepare demand schedules for the three commodities.Also compare their price elasticities: 4

Price/kg (Rs.)	Total Expenditure (Rs.)				
	Commodity A	Commodity B	Commodity C		
2	6	6	6		
3	6	5	7		
4	6	4	8		

b) A consumer was consuming 4 kgs of sugar per month, when his income was Rs. 1000 per month. When his income increased to Rs. 1,200 per month, he started consuming 5 kgs of sugar per month. Is the demand for sugar elastic or inelastic with respect to income?

(Assume no change in other determinants of demand.)

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c) From the given information estimate sales for the year2004 & 2005.

Years	1998	1999	2000	2001	2002	2003
Sales (Rs. in	50	60	65	72	79	75
Lakhs)						

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8. A company has an investment proposal costing Rs. 1,00,000 with the following expected net cash flows (after cash and depreciation):

 Year:
 1
 2
 3
 4
 5

 Net cash flows (Rs.):
 18,000
 20,000
 20,000
 22,000
 10,000

Project life is 5 years. Company uses the straight line method of depreciation. Company's tax rate is 50%. Using 12% discount rate calculate:

- a) Payback period
- b) Payback profitability
- c) Average rate of return
- d) Net present value
- e) Profitability Index.
- 9. Give a brief description of
 - a) Implicit and Explicit Cost
 - b) Actual and Opportunity Cost
 - c) Fixed Cost and Variable Cost.

5 + 5 + 5

- 10. Define National Income. Describe various methods of measuring National Income. Mention the difficulties in measuring National Income.
- 11. Distinguish between Capital Account and Current Account.
 Mention two correcting measures for adverse BOP situation in a country.

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