



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/M.Tech(LT)/SEM-2/MLT-204/2013**

**2013**

**INDUSTRIAL RELATIONS AND 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.*

Answer any *five* questions.  $5 \times 14 = 70$

1. a) In the context of consumer demand, distinguish between cross-elasticity and elasticity of substitution.  
b) Briefly explain the axioms of choice necessary to analyse consumer equilibrium.  $6 + 8$
2. Discuss the price, income and substitution effect in the context of Hicksian indifference curve analysis stating the results for normal, inferior and Giffen goods.
3. a) Define average and marginal productivity.  
b) Describe using diagram the relationship between average and marginal productivity.  
c) Show that  $MP = AP$  at the maximum point of A.P.  
d) Show that  $MR = AR (1 - 1/e_d)$  where  $e_d$  = elasticity of demand.  $4 + 4 + 4 + 2$

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4. Compare the short run and long run equilibrium under perfect competition and show that while the short run equilibrium requires fulfilment of the condition  $P \geq AVC$ , the long run equilibrium necessitates the fulfilment of the condition  $P \geq AC$ .
5. a) Show why a Monopolist will never produce in the inelastic part of the demand curve faced by him.  
b) Describe the long run equilibrium under monopoly.
6. With suitable explanation, distinguish between the three forms of price discrimination under monopoly.
7. Consider the following information relating M/S XYZ Limited.

<i>Time Period</i>	<i>Cash Outlay (Rs. )</i>	<i>Profit Before Tax (Rs. )</i>	<i>Tax Rate (Rs. )</i>	<i>Depreciation (Rs. )</i>
0	1,20,000	—		—
1	—	60,000	30%	20,000
2	—	50,000	25%	20,000
3	—	60,000	25%	20,000
4	—	54,000	30%	20,000
5	—	62,000	30%	20,000
6	—	40,000	30%	20,000

You are required to calculate the Payback period, Net Present Value and Profitability Index of the project. Take the discounting rate as 10%.