#  <br> Name : <br> Roll No. <br> $\qquad$ $\cdots$ Invigilator's Signature : <br> $\qquad$ <br> CS/M.Tech (LT)/SEM-2/MLT-204/2010 2010 <br> INDUSTRIAL RELATIONS \& 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) Define elasticity of substitution, income elasticity of demand and cross price elasticity.
b) Describe consumer equilibrium in the ordinal approach assuming that the consumer is utility maximiser subject to a given income.
2. a) Describe the relationship between average productivity and marginal productivity. Show that MP = AP when AP is maximum.
b) How do you define elasticity of output w.r. to input?
c) Explain the law of variable proportions and the concept of ridge lines.

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6+2+6
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3. a) Define Fixed, Variable and Marginal Cost
b) Describe the relationship between short run AC and MC curves.
c) Show that the long run AC curve envelops the short run AC curves. $6+4+4$
4. Compare the short run equilibrium and long run equilibrium under perfect competition and show that in the long run $P_{L}=$ LAC.
5. a) Show that a monopolist will never produce on the inelastic part of its demand curve.
b) Describe the long run equilibrium under monopoly stating the possible outcomes.
6. a) Briefly describe the Payback and Accounting Rate of return methods for the appraisal of investment projects.
b) What are the fundamental differences between the NPV and IRR methods ? Describe how these two methods can sometimes give conflicting results. $4+10$
7. a) Define Operating Leverage and Financial Leverage.
b) Describe the Modigliani-Miller theorem on Capital Structure and comment on its implication for the valuation of a firm.
$4+10$

