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REC-002

00212

RESEARCH DEGREE PROGRAMME IN ECONOMICS

Term-End Examination

June, 2016

REC-002 : ECONOMIC THEORY

Time : 3 hours *Maximum Marks : 100*

Note : *Answer questions from each section as per instructions.*

SECTION - A

Answer **any two** questions from this section. **2x20=40**

1. Consider the utility function $u = x^{\alpha} + y^{\alpha}$

   Let prices be p_x and p_y and income be m. Derive the indirect utility function and expenditure function.

2. Suppose Ahmed is planning a trip on which he will spend ₹ 10,000. The utility from the trip is a function of how much he actually spends on it (y), given by $u(y) = ln\ y$

   (a) If there is 0.25 probability that Ahmed will lose ₹ 1,000 of his cash on the trip, what is the trip's expected utility ?

   (b) Suppose that Ahmed can buy insurance against losing the ₹ 1,000 at an 'actuarially fair' premium of ₹ 250. Show that his expected utility is higher if he purchases this insurance than if he faces the chance of losing the ₹ 1,000 without insurance.

(c) What is the maximum amount that Ahmed would be willing to pay to ensure his ₹ 1,000 ?

3. Describe the model of a representative agent maximising an inter - temporal utility function. Give the basic structure of the cass koopmans Model.

4. What is a dynamic game of incomplete information ? How does it differ from a dynamic game of complete information ? Discuss the relevant equilibrium concepts for both these types of games.

SECTION - B

Answer **any five** questions from this section. **5x12=60**

5. Describe the equilibrium price and output determination of a firm operating as a discriminating monopolist.

6. Discuss the search theoretic model of employment determination.

7. What are real rigidities ? How do they arise ? In what way do they differ from nominal rigidities ?

8. Discuss the concept of a social choice function. How is it related to the concept of a social welfare function ?

9. Prove the existence of general equilibrium under conditions of production. State carefully the assumptions under which existence of equilibrium can be proved.

10. Explain :
    (a) Hotelling's Lemma
    (b) Slutsky equation

11. What is the difference between cooperative games with transferable utility and those without transferable utility ? Explain (a) nucleolus (b) Shapley value.

12. Describe the basic structure of a Principal-Agent model. Discuss how the principal can set up a screening mechanism.