14 (ECO–2) 2016

2023

ECONOMICS

Paper : ECO–2016

(Advanced Microeconomics)

Full Marks : 80

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Answer the following : *(Each within **50** words)*

5×4=20

(a) Why is discounting essential in understanding intertemporal choice? Illustrate with an example.

(b) Suppose a consumer prefers X to Y to Z. Suppose her utilities from X and Z are $U(X) = 15$ and $U(Z) = 5$ and her preferences are ordinal. Consider a lottery L that gives her alternative X with probability Px and alternative Z with probability $(1 - Px)$. If $U(Y) = 9$, find the probability Px that makes her indifferent between lottery L and middle alternative Y.

(c) State the basic features of a computable general equilibrium model.

(d) Define marginal revenue product and the value of marginal product of a factor. Under what condition are they equal ?

4+1=5

2. Answer **any three** of the following : *(Each within 150 words)*   10×3=30

(a) What do you mean by certainty equivalence income ? Show how the certainty equivalence income determines different risk premiums for different degrees of risk aversion.   2+8=10

(b) What is market signalling ? How does market signalling in a job market help in distinguishing workers by their productivity ?   2+8=10

(c) Show how workers can be exploited in a monopolistic labour market. Explain how enforcement of minimum wage legislation can limit exploitation.

7+3=10

(d) State the two fundamental theorems of welfare economics. Illustrate the second theorem using a simple two consumers-two goods model of general equilibrium of exchange. 4+6=10

(e) Define a social welfare function (SWF) and a social indifference curve. Show that under Bergson-Samuelson framework a social indifference curve is negatively slopped. What will be the nature of the social indifference curve under the utilitarian social welfare function ? 3+5+2=10

3. Answer *any two* of the following : 15×2=30

(a) Analyze the intertemporal equilibrium of a consumer. How is the consumer affected by a change in the rate of interest? Also, estimate the slope of the intertemporal budget line when the rate of interest is equal to the rate of growth of prices. 7+4+4=15

(b) Give the outline of the Walrasian economy and define the state of general equilibrium in it. Show how the economy can find its way to the equilibrium through the process of *tatonnement*.

10+5=15

(c) Show that, in presence of negative externality, market equilibrium output will exceed the socially efficient output. Under what conditions and how can voluntary negotiation between parties result in the socially efficient outcome ?

6+2+7=15

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