

RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College affiliated to University of Calcutta)

B.A./B.Sc. FIRST SEMESTER EXAMINATION, DECEMBER 2016

FIRST YEAR (BATCH 2016-19)

ECONOMICS (Honours)

Date : 13/12/2016

Time : 11 am – 3 pm

Paper : I

Full Marks : 100

(Use a separate Answer Book for each Group)

Group – A

Answer **any three** questions:

[3×6]

1. Consider the following cost function: $C = a + b \cdot Q + c \cdot Q^2 + d \cdot Q^3$. Explain in detail under what parametric restrictions will this cost function generate U-shapes AVC and MC curves. [6]
2. If the consumer is indifferent between the bundle (1,1) and (2,2) what would you infer about the nature of the goods? Also draw the indifference map for this particular case. [6]
3. i) What is Marginal Rate of Substitution (MRS)?
ii) How MRS will have an influence on the shape of an indifference curve?
iii) Can you draw an indifference curve that does not have diminishing MRS? Explain the preference pattern. [1+2+3]
4. Can a production function, which exhibits constant returns to scale (CRS), be subject to diminishing returns to input? Give reasons for your answer. [6]
5. What is price control? Give examples. Show that if price is set below equilibrium price then output will fall and a shortage will result. [6]
6. The Hicksian demand curve for a good must be more elastic than the Marshallian demand curve. Is this true or false? Explain. [6]

Answer **any four** questions:

[4×8]

7. Define Engel curve.
Obtain the slope of the Engel curve of the consumer where utility function is $U = q_1^\alpha q_2$, where α is a positive constant. [2+6]
8. State the strong axiom of revealed preference.
Using graphical exposition explain in detail the 'Weak Axiom of Revealed Preference' (WARP). [2+6]
9. "All Giffen goods are inferior goods, but all inferior goods are not Giffen goods." Examine the validity of the statement. [8]
10. Discuss in detail construction of 'Long Run Average Cost Curve' (LAC) from 'Short run Average Cost curves' (SACs). [8]
11. Explain in detail the Cobweb model of dynamic demand and supply.
Define Homogeneous production function. [6+2]
12. Consider the quasilinear utility function $u = \ln x_1 + x_2$. Let P_1 and P_2 denote the prices of x_1 and x_2 , respectively and m denote income.
(i) Calculate the demand functions.
(ii) Draw the income consumption curve.
(iii) Calculate the price elasticity of demand for each good.

(iv) Calculate the income elasticity of demand for each good.

[2+2+2+2]

13. i) Suppose there are two goods with given prices and money income of a consumer. Show in a diagram how it is possible to split the effect of a price fall on good 1 into a substitution and income effect.
- ii) If the good had been an inferior good, what would have been different in the diagram?
- iii) If the good had been a Giffen good, what would have been the difference? [3+2½+2½]

Group – B

Answer **any three** questions of the following :

(3 × 4)

14. Suppose a car producer produces 150 cars per year of the total amount of cars produced it sells 50 cars to Uber, a car service providing company, 80 to general consumers. The rest is kept by it to supply to the film industry that requires 40 cars in a gap of two years. If price of each car is Rs 5 Lakh, how much is the contribution of the company in national income?
15. Distinguish between frictional and structural unemployment.
16. How does the slope of the LM curve influence the efficiency of fiscal policy?
17. Define Tobin's q. How is it related to the investment decision of firms?
18. If consumption function is given by $C = 100 + 0.5Y$ and $I = \text{Rs } 500$, find the equilibrium level of income in a closed economy with two sectors. If MPC rises by 60% what will be the change in the equilibrium income? Illustrate graphically.

(1 + 3)

Answer **any one** question of the following :

(1 × 8)

19. Consider the standard IS-LM model. Show how an increase in government spending will influence the level of equilibrium income. How much will the impact vary had the supply of money be dependent on the rate of interest positively?
20. If in a closed economy with only two sectors $MPS > MPI > 0$, can a rise in personal savings leads to a fall in national income?

(4 + 4)

Answer **any two** questions of the following :

(2 × 15)

21. Suppose that the demand for real money balances depends on disposable income, i.e.,

(5 + 5 + 5)

$$\frac{M}{P} = L(r, Y - T)$$

Using the IS-LM model discuss whether this change in money demand alters the following :

- a) The analysis of changes in government purchases
- b) The analysis of changes in taxes.
- c) How will the effect change as tax becomes a function of income, i.e., $T = t.Y$.
22. What are the three reasons cited for the emergence of real wage rigidity in labour market? Explain, with the help of models, how could such rigidity lead to the existence of unemployment.
23. How does Friedman's Permanent Income Hypothesis complements Modigliani's Life Cycle Hypothesis? Discuss the intertemporal consumption choice decision of firms and state how its result deviates from the Keynesian findings.
24. Discuss the Neo-classical theory of Investments. What are the effects of (i) Taxes and (ii) Financing constraints on such investment decisions.

(2 + 13)

(3 + 12)

(10 + 2.5 + 2.5)

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