

RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College affiliated to University of Calcutta)

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

SECOND YEAR (BATCH 2015-18)

ECONOMICS (Honours)

Date : 12/12/2016

Time : 11 am – 3 pm

Paper : III

Full Marks : 100

(Use a separate Answer Book for each Group)

Group – A

Answer **any three** questions from **Question No. 1 to 5** :

(3 × 4)

1. Let $q = A + \frac{w}{p}L$, where $A = \frac{\pi^0 + rk}{p}$
 - a) Find the value of A when $\pi^0 = 400$, $r = 5\%$, $K = 1000$ & $P = \text{Rs. } 3$ (1)
 - b) When $W = 45$ and the firm maximizes profit at $q = 300$, calculate the amount of labour L that will be employed by the firm. (1)
 - c) Assuming that capital and labor are the only inputs on the production, what will be the total profit of the firm? (1)
 - d) Calculate the marginal productivity of labor and the value of marginal product of labor. (1)
2. Let the labor supply be given by $20W = L_S$ and labour demand is given by $10W = 1200 - L_D$, where W is the wage rate.
 - a) Find the equilibrium wage and employment in this market. What is amount of economic rent? (2)
 - b) What will happen to employment if there is minimum wage law that sets wage at a minimum of Rs. 70 & Rs. 30 respectively? (2)
3. Define production possibility frontier (PPF). If the PPF for eggs and cakes is given by $E + 2C = 600$, graph this function. (2 + 2)
4. What is a Social Welfare Function? What are the forms of Social Welfare Functions if we use – (i) Benthamite criterion and (ii) Rawlsian criterion? Can you explain their differences? (1 + 1 + 2)
5. How the moral hazard problem might arise in case of health insurance? (4)

Answer **any one** question from **Question No. 6 & 7** :

(1 × 8)

6. "Diversification among several uncertain options may reduce risk. Such risk spreading may sometimes be costlier" – Discuss.
7. Suppose that a pure exchange economy has just two consumers, A and B and two commodities, labelled 1 and 2. The endowments of the two agents respectively are $W_A = (W_A^1 = 10, W_A^2 = 10)$ and $W_B = (W_B^1 = 8, W_B^2 = 4)$. The utility functions are $u_A = (x_A^1)^{0.5}(x_A^2)^{0.5}$ and $u_B = (u_B^1)^{.25}(u_B^2)^{.75}$. Solve for the Walrasian equilibrium in this model.

Answer **any two** questions from **Question No. 8 to 11** :

(2 × 15)

8. a) Explain with diagram how a firm chooses to hire inputs in a set up where the commodity market both are competitive and there is only one variable input in the production and the other one is fixed. (5)
- b) Suppose that a firm's production function is given by $q = 12L - L^2$; $0 \leq L \leq 6$, where L is the labour input and q is the output produced by the firm. Derive and draw the firm's demand for labour curve if the firm's output sells for Rs. 10 in a competitive market. How

- many workers will the firm hire when the wage rate is Rs. 30 per day and Rs. 60 per day respectively? (5)
- c) Suppose again the production function is $q = 8\sqrt{L}$, the commodity sells for Rs. 150 per unit and the wage rate is $W = \text{Rs. } 75/\text{hr}$. Find the profit maximizing quantity of L , q and finally the maximum profit. (5)
9. a) Why does a firm with a positively sloped supply curve for labour will base its decisions on the marginal expense of labour curve? Illustrate graphically. (8)
- b) Show with the help of a diagram that when both demanders and suppliers have monopoly power, the price will be indeterminate. (7)
10. a) "Law of Diminishing Marginal Utility (LDMU) in an uncertain situation implies risk averse individual" – Justify. (5)
- b) Suppose the V. N. M utility function of an individual is $u = \sqrt{x}$. Initial wealth of this individual is $x = 36$. Will she accept the gamble in which she wins Rs. 13 with probability $\frac{2}{3}$, and lose Rs. 11 with probability $\frac{1}{3}$? Give theoretical justification. (4)
- c) Suppose the V. N. M utility function of an individual is $u = x^2$. Will the person accept the gamble where there is 50% chance of winning or losing Rs. 20, when her initial wealth is $x = 100$? Provide theoretical justification. (4)
- d) Calculate the Arrow – Pratt coefficient of absolute risk measure in both (b) & (c). (2)
11. a) Explain, with an example, how job market signalling can eliminate the problem of adverse selection. (8)
- b) How can principal's function as the residual claimant reduce the principal agent problem? Explain. (7)

Group – B

Answer **any three** questions from **Question No. 12 to 16** : (3 × 4)

12. Do you think that rising inequality level in a country may create impediments for its development?
13. Can a super entrepreneur with the help of its leadership ability solve the problems of complementarity and coordination failure?
14. How is Human Development Index calculated?
15. Explain Kuznet's Inverted U hypothesis.
16. When is an inequality measure said to be Lorenz consistent?

Answer **any one** question from **Question No. 17 & 18** : (1 × 8)

17. Discuss the following measures of poverty and inequality : (2 × 4)
- Head count Ratio
 - Poverty gap
 - Lorenz Curve
 - Coefficient of Variation
18. What are the different stages of demographic transition? What do you understand by 'Hidden Momentum of Population Growth'? (4 + 4)

Answer **any two** questions from **Question No. 19 to 22** : (2 × 15)

19. Discuss the concepts of complementarity and coordination failure with examples. Discuss in detail the issue of coordination failure using multiple equilibria and S curve analysis. Point out the assumptions of the Big Push Theory. (5 + 7 + 3)

20. Explain the possible sequences of projects in an unbalanced growth strategy and mention what should be the most efficient sequence for maximizing 'induced decision-making'. Distinguish between the theory of unbalanced growth and balanced growth. (10 + 5)
21. a) Examine the core values of economic development. (7)
b) Explain the notion of development in terms of 'capabilities' as suggested by A. K. Sen. (8)
22. a) Do you agree with the view that 'Development, if not engendered, is endangered'? Give reasons for your answer. (10)
b) What do you mean by 'Sustainable development'? (5)

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