

RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College under University of Calcutta)

B.A./B.SC. THIRD SEMESTER EXAMINATION, DECEMBER 2012

SECOND YEAR

Economics (Honours)

Date : 14/12/2012

Time : 11am – 3pm

Paper : III

Full Marks : 100

(Use separate answer book for each group)

Group – A

1. Answer **any three** question of the following: [3×4]
 - a) Constant Returns to Scale and perfect competition will lead to indeterminacy in the long run – Explain. (4)
 - b) Under what circumstances would a competitive firm that incurs losses choose to produce rather than shut down in the short run? (4)
 - c) A monopolist faces the demand curve : $p=20-2q$ and its cost function is : $c=10+8q$. Find (i) the Lerner Index of monopoly power. (ii) deadweight loss. (2+2)
 - d) Explain why the market demand for an input is not the simple horizontal summation of the demand curves for individual firms? (4)
 - e) Explain the meaning of Nash Equilibrium. How does it differ from an equilibrium in dominant strategies? (4)
2. Answer **any one** question of the following: [1×8]
 - a) Briefly explain the Cobweb model of price and quantity adjustment in a perfectly competitive market.
 - b) Can a long run industry supply curve ever slope differently when all the constituent firms have upward sloping supply curves in perfectly competitive framework? Explain.
3. Answer **any two** question of the following: [2×15]
 - a) Derive the Grand Utility Possibility Frontier on the basis of the Production Possibility Frontier. Hence find the welfare optimum for the economy and the resultant equilibrium in consumption and production. (8+7)
 - b) A firm in the competitive industry has the long run cost function : $c = 2q^3 - 40q^2 + 1200q$.
 - i) If the firm can sell its output at a price $p = 1046$, how much will it produce to maximize profit? (3)
 - ii) Is the output of the firm in (i) compatible with industry equilibrium? (2)
 - iii) If the industry is one of constant cost industry, derive the equation for long run supply curve of the industry. (2)
 - iv) If the market demand curve is : $p=8500-5q$, how many firms will there be in the long run equilibrium? (3)
 - v) Do the Pareto-efficiency conditions hold in a perfectly competitive market? (5)
 - c) Consider two identical firms facing a market demand curve : $p=30-q$, where $q = q_1 + q_2$, q_1 and q_2 being the outputs produced by the two firms. Each firm has zero marginal cost.
 - i) If the two firms decide their outputs simultaneously how much will they choose to produce? Show the solution graphically using reaction curves. (4)
 - ii) What will be the output levels when one firm gets to move first? Is moving first an advantage? Why? (4)
 - iii) Show that collusion can lead to higher profits for both firms. (3)
 - iv) If collusion is profitable, why don't the Cournot firms produce output at the joint-profit maximizing levels? Is there any 'prisoners' dilemma' involved here? (4)
 - d) i) Consider a monopoly firm who uses labour and capital as inputs. Graphically derive its demand for labour? (5)

- ii) If a firm who uses single variable factor has monopolistic power in commodity market and monopsonistic power in the factor market, what will be the equilibrium level of labour demanded and wage offered? (5)
- iii) Describe monopolistic and monopsonistic exploitation. (5)

Group – B

4. Answer **any three** question of the following: [3×4]
- Consider an economy with the following economy wide production function $Y = AK^{.3}L^{.7}$. Suppose, everything else remaining constant, the economy experiences a 3% growth rate of labour force. What will be the growth rate of the economy?
 - Distinguish between nominal and real interest rates. Suppose an economy is experiencing a high rate of inflation over a long span of time. What, according to you, would be its impact on the demand for money? Explain.
 - Consider an economy without any supply shock. One percent increase in unemployment rate reduces inflation by 2%. If, in this economy the natural rate of unemployment is 6%, $\Pi = 0.04$ and $\Pi^e = 0.08$, what is the unemployment rate?
 - Distinguish between inside lag and outside lag.
 - In what way does the existence of near money complicates the conduct of monetary policy?
5. Answer **any one** question of the following: [1×8]
- Explain the Baumol- Tobin model of cash management. What, according to you, will be the impact of opening up a branch of the bank in which you have your account near your locality on your money demand if the predictions of Baumol- Tobin model holds true.
 - Suppose that an economy has the Phillips curve $\pi = \pi_{-1} - 0.5(u - 0.06)$, where π =present inflation, π_{-1} =inflation in the previous period & u =unemployment rate.
 - What is the natural rate of unemployment?
 - Graph Short run & Long run relationship between inflation and unemployment.
 - How much cyclical unemployment is necessary to reduce inflation by 5 percentage points? Using Okun's Law, compute the sacrifice ratio.
 - Inflation is running at 10 percent. The Central Bank wants to reduce it to 5 percent. Give two policy instruments which will achieve that goal. (1+1+4+2)
6. Answer **any two** question of the following: [2×15]
- Discuss, what do you mean by Golden Rule of Capital Accumulation. Explain the impacts of adjusting savings to the Golden Rule if the economy is having a savings rate that is
 - below the Golden Rule level, (ii) above the Golden Rule level. (8+3 $\frac{1}{2}$ +3 $\frac{1}{2}$)
 - Explain why we can consider the Phillips curve as an alternative explanation of the Aggregate Supply curve.
 - Discuss the impacts of Demand Pull Inflation and Cost Push Inflation on the Phillips Curve.
 - Discuss the concept of Sacrifice Ratio. (5+6+4)
 - Discuss, in brief, about the instruments through which the Central Bank can conduct its monetary policy operations.
 - Discuss the concept of Money multiplier. What will be the impact of increase in currency-deposit ratio on the money multiplier? (5+8+2)
 - What is Solow residual? What could be the two measurement problems related to the cyclical behaviour of Solow residual to occur? (3+12)