

**B.A. 1ST YEAR 1ST SEM. EXAMINATION, 2018****ECONOMICS (HONOURS)****PRINCIPLES OF ECONOMICS - I (OLD)**

Time: Two hours

Full Marks:30

**Answer any 6 questions. Each question carries 5 marks.**

- 1) Consider the case of perfect competition. Assume a U shaped marginal cost curve in the short run. Explain why the firm's short run supply curve is a section of the upward sloping portion of the marginal cost curve. (5)
- 2) Consider the case of an economy where there are only 2 goods, bread and butter. An individual's utility function is given by  $U = \min(2x, y)$  where  $x$  is the amount of butter consumed and  $y$  is the amount of bread consumed. Adopt suitable notation for the prices of bread and butter as well as income. Determine the demand functions for bread and butter (functions which express the quantities demanded of bread and butter as functions of prices and income). What happens to the quantity demanded of bread when the price of butter rises? (4+1=5)
- 3) Consider an economy under autarky with a given production possibility set. Identify the consumption possibility set of the economy. Show why under trade the consumption possibility set of the economy can be a superset of that under autarky. (1+4=5)
- 4) Consider a market supply curve characterized by unit price elasticity. Assume that a sales tax of Rs.  $x$  per unit is imposed by the government. Comment on the relative size of the buyer's burden and seller's burden when a) demand is perfectly elastic; and b) demand is perfectly inelastic. Give reasons for your answer. (2.5 +2.5=5)
- 5) Comment on the shape of the long run average and marginal cost curves of a firm which has a production function  $Q = F(K, L)$  characterised by constant returns to scale. Explain your comment through a mathematical derivation. What happens to the cost curves if the isoquant map remains the same but each isoquant now corresponds to double the amount of output it was associated with in the past. (1+2+2=5)
- 6) Consider a short run equilibrium under monopoly where the marginal cost curve of a firm is a horizontal line (constant marginal cost). Draw a diagram to show that it is possible for the firm to earn negative profits in this equilibrium. Explain why the firm operates on the elastic portion of the demand curve. (2.5+2.5=5)
- 7) Explain the concept of an externality. Explain why it should be taxed or subsidized. (2+3=5)