Ex/UG/ECO/2.1/47/2017 (OLD)

BACHELOR OF ARTS EXAMINATION, 2017

(1st Year, 2nd Semester)

ECONOMICS (HONOURS)

MICROECONOMICS I (OLD)

Time : Two hours Full Marks : 30

1. (a) State and explain the axioms on consumers' preferences over commodity bundles.

(b) Explain why the monotonicity (non-satiation) axiom ensures that it is sufficient to look for the consumer's optimal point on the budget line. (6+2)

2. Consider a two good world. Both goods are normal goods. Use a diagram to carefully isolate the income and substitution effects of an **increase** in the price of one good. The consumer is assumed to be a price taker with a fixed budget, and his preferences over commodity bundles satisfy all the usual axioms. Now draw his Marshallian and Hicksian demand curves. (6+2)

3. A price taking firm's production function is given by $Q = 10\,x^2y$, where Q is the quantity of output, and x and y are quantities of the two variable inputs. Explain carefully why this firm does not have a profit maximizing output for any positive output price. (Hint: check the degree of homogeneity of the production function.) (6)

4. A price taking firm owned by a single person produces a homogeneous good. Its cost function is given by $C(Q) = 10Q^2 + 1000$. The owner has to take the decision on output before he knows the actual output price. But he does know that this price can be Rs. 100 with probability 0.3 and Rs. 200 with probability 0.7. Set up his optimization problem assuming that he is an expected utility maximize whose Bernoulli utility function is given by $u(\Pi) = \sqrt{\Pi}$. Find his optimal output. Is this output different from his output had the price been Rs. 150 with certainty? If so, explain why this is so. (4+4)