OLLSCOIL NA hEIREANN, GAILLIMH
THE NATIONAL UNIVERSITY OF IRELAND, GALWAY

AUTUMN EXAMINATIONS 2001-2002

EC215 Microeconomics

2nd Arts, 2nd (Public & Social Policy), 2nd B.Sc. in Fin. Maths. & Econs

Professor H. Dixon
Professor M.P. Cuddy
Ms. Eithne Murphy

Time allowed: THREE hours.
There are two Sections A and B. Both sections must be answered. Follow the directions for each section.

SECTION A (30 marks)

Answer one of the following two questions. Each question is worth 30 marks.

1. Neoclassical economic theory uses the tool of indifference curves to describe consumer preferences and behaviour.

   (i) Where do consumer preferences come from and what do we mean when we say that consumer preferences are complete? (2)

   (ii) What is the definition of an indifference curve? (2)

   (iii) What does the slope of the indifference curve represent and why? (5)

   (iv) What assumption as to consumer preferences results in negatively sloped indifference curves? (5)

   (v) What assumption as to consumer preferences results in strictly convex indifference curves? (5)

   (vi) Explain why, when preferences can be represented by negatively sloped convex indifference curves, utility maximisation implies that we are indifferent between one more unit of good x or one more unit of good y. (8)

   (vii) Does the statement in (vi) imply that we like all goods equally well? Explain. (3)

2. A firm can produce the same quantity of a good using capital and labour in different proportions. We shall identify three technological possibilities A, B and C. The marginal productivity of labour (MPL) and the marginal productivity of capital (MPK) for each production technique are as follows:

	A	B	C
MPL	20	18	12
MPK	15	18	24

(i) If we assume **well behaved technology**, which of the three possibilities represents the most capital intensive methods of production and which represents the most labour intensive method of production and why? (8)

(ii) Explain the concept Marginal Rate of Technical Substitution and give an example using any (or all) of the numbers shown above. (3)

(iii) If the cost of capital is twice the cost of labour, which of the above production techniques would be the most cost minimising and why? (3)

(iv) If the marginal productivity of capital and labour were constant, what shape would the isoquants have? (3)

(v) Can technology exhibit diminishing marginal productivity and constant returns to scale? Explain your answer. (3)

(vi) If the price of a factor of production changes, demand for that factor will change for two reasons: What are they? (10)

SECTION B (120 marks)

Answer <u>three</u> of the following <u>six questions</u>. Each question is worth 40 marks.

1. (i) Explain why we would expect an individual to purchase more of a **normal** good of its price fell. (20)

(ii) Why might an individual buy less of a good if its price fell? (10)

(iii) Why do the behavioural reasons behind a negatively or positively sloped demand curve matter? (10)

2. (i) Discuss the importance of the assumption of consumer sovereignty when it comes to policy decisions by governments. (20)

(ii) How might government priorities regarding social issues change, if individual welfare is seen as something more than preference satisfaction? (20)

3. (i) What do you think are the factors that determine how substitutable goods are in consumer preferences? (5)

   (ii) What is meant by consumer surplus and how accurate is it to estimate consumer surplus from observed demand curves? (10)

   (iii) Discuss the usefulness and limitations of prices indices as a measure of change in consumer welfare. (25)

4. (i) Explain why own price elasticity of demand varies along a linear (constant slope) demand curve. At what point on a linear demand curve is total revenue maximised and why? (10)

   (ii) How would you expect the price elasticity of demand for necessities to differ between a high income and a low income family? What would be (a) the social impact of a tax on necessities; and (b) the fiscal impact of such a tax. (10)

   (iii) Governments can tax or subsidise the employment of capital and/or labour. If the primary aim of government policy is employment generation at minimum fiscal cost, how does a knowledge of: (a) actual production methods and (b) different production possibilities; allow for a more effective and targeted policy? (10)

   (iv) Explain, using the concepts of own price elasticity of demand and income elasticity of demand, the problems for a country whose exports are principally commodities. (10)

5. (i) Explain why, for any given output level, the long run average cost curve can never exceed the short run average cost curve. (10)

   (ii) Explain the relationship between marginal cost and average cost if average cost falls as output increases. (10)

   (iii) Using the concept of profit maximisation, explain what determines a producer's supply curve in a market where (s)he has not control over prices. (10)

   (iv) If prices are decreasing in output (producer is facing a negatively sloped demand curve), what would be the profit maximising level of output? (5)

   (v) If marginal costs were decreasing in output, what would be the profit maximising level of output? (5)

6. (i) What is the distinction between accounting profit and economic profit (or economic rent) and what market conditions can allow firms to earn economic rent in the long run? (10)

   (ii) What are the costs associated with markets dominated by monopolies? (20)

   (iii) If a monopolist could perfectly price discriminate amongst consumers, what effect would this have on allocational efficiency in that market? (10)