

OLLSCOIL NA hÉIREANN, GAILLIMH
NATIONAL UNIVERSITY OF IRELAND, GALWAY

SUMMER EXAMINATIONS 1999

ECONOMICS PAPER 1 (EC100, EC101)

1st Arts, 1st BComm, 1st FinMath, 1st BScIT, 1st CorpLaw

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Time Allowed: THREE HOURS

N.B. There are 100 multiple choice questions. Please read them carefully. Mark your answers on the answer sheet provided. Each question is worth one (1) mark. There is no negative marking. Good luck.

Be sure to put your I. D. number on the answer sheet, putting a zero first. (i.e., 09812345) Then fill in the appropriate numbered circle below each number.

1. Which of the following is **not** a component of Aggregate Demand
 - (a) Savings
 - (b) Consumption
 - (c) Investment
 - (d) Government Spending
 - (e) Net Exports
2. The higher the Marginal Propensity to Consume, the
 - (a) higher the Marginal Propensity to Tax
 - (b) higher the Marginal Propensity to Save
 - (c) lower the Multiplier
 - (d) higher the Multiplier
 - (e) lower the Marginal Propensity to Import
3. The Expenditure Multiplier in Ireland is
 - (a) lower because of the high amount of imports
 - (b) higher because of the high amount of exports
 - (c) high because of the European Union
 - (d) both (a) and (b)
 - (e) none of the above

4. The Aggregate Demand curve depicts the relationship between
- (a) money and investment
 - (b) income and expenditure
 - (c) the amount demanded in the economy and the price level
 - (d) the level of Government Spending and the price level
 - (e) interest rates and the total investment in an economy
5. Which of the following was **not** a contributing factor of the Great Depression?
- (a) large government deficits
 - (b) Stock Market Crash of 1929
 - (c) reduction in consumer spending
 - (d) introduction of trade barriers and tariffs
 - (e) overemphasis on fiscal responsibility
6. Which of the following is part of a Expansionary Fiscal Policy?
- (a) an increase in taxes
 - (b) an increase in government spending
 - (c) an increase in the money supply
 - (d) both (a) and (b)
 - (e) none of the above
7. The "Crowding-Out" effect of government spending refers to
- (a) too many government workers
 - (b) large government surpluses affecting the budget
 - (c) government borrowing lowering private investment
 - (d) a large increase in government debt
 - (e) none of the above
8. Demand management policies
- (a) were advocated by Keynes
 - (b) refer to boosting the economy during recessions and slowing the economy during booms
 - (c) are always and everywhere effective
 - (d) both (a) and (b)
 - (e) both (a) and (c)
9. An increase in the price of foreign goods will cause
- (a) the aggregate demand curve to shift down and to the left.
 - (b) the aggregate demand curve to shift up and to the right.
 - (c) the aggregate supply curve to shift up and to the left.
 - (d) the aggregate supply curve to shift down and to the right.
 - (e) a movement along the aggregate demand curve.

10. An increase in the interest rate will cause
- (a) the aggregate demand curve to shift down and to the left.
 - (b) the aggregate demand curve to shift up and to the right.
 - (c) the aggregate supply curve to shift up and to the left.
 - (d) the aggregate supply curve to shift down and to the right.
 - (e) a movement along the aggregate demand curve.
11. Under the Maastricht Criteria, countries wishing to join the Euro must do which of the following:
- (a) promise never to borrow money for deficits
 - (b) always run a budget surplus
 - (c) keep the size of any deficit less than 3%
 - (d) keep the size of any deficit less than 1%
 - (e) none of the above
12. In a small open economy like Ireland, which of the following limits the effects of fiscal policy:
- (a) the high amount of exports
 - (b) the large number of tourists entering the country
 - (c) the high prices of houses
 - (d) the low amount of imports
 - (e) the high propensity to spend income on imports
13. The Live Register is usually a larger measure of unemployment than the Labour Force Survey because:
- (a) people such as homemakers are not included in the labour force, yet may receive social welfare benefits
 - (b) unemployed people who are not actively seeking work are not counted as unemployed yet receive social benefits.
 - (c) fraud
 - (d) all of the above
 - (e) none of the above
14. Which of the following is **not** a type of unemployment?
- (a) Seasonal
 - (b) Demand Deficient
 - (c) Stochastic
 - (d) Structural
 - (e) Frictional
15. Efficiency wages
- (a) are lower wages paid to make an economy efficient.
 - (b) are higher wages paid by a firm to prevent turnover or theft.
 - (c) are lower wages paid to non-union workers.
 - (d) are paid when marginal revenue is above marginal cost.
 - (e) are paid only to unskilled workers.

16. Expansionary Fiscal Policy is used to
- (a) lower the price level
 - (b) lower the amount of national income
 - (c) increase the amount of exports
 - (d) increase the money supply
 - (e) increase Aggregate Demand and GDP
17. Looking at labour supply, unemployment occurs because
- (a) the wage is too high.
 - (b) social welfare benefits are too high.
 - (c) social welfare benefits are too low.
 - (d) the wage is too low.
 - (e) both (b) and (d)
18. Looking at labour demand, unemployment occurs because
- (a) the wage is too high.
 - (b) social benefits are too low.
 - (c) the wage is too low.
 - (d) the minimum wage is set too low.
 - (e) there are no efficiency wages.
19. The following is **not** an example of frictional unemployment:
- (a) a person who is between jobs.
 - (b) a university graduate who is just entering the workforce.
 - (c) a hotel worker who does not work after the tourist season.
 - (d) both (a) and (b)
 - (e) none of the above
20. Which of the following describes the relationship between a government deficit and a government debt?
- (a) Debts are good while deficits are bad.
 - (b) Deficits are good while debts are bad.
 - (c) The debt is a short term measurement while deficit measures the long term.
 - (d) The deficit is a yearly budget shortfall while the debt is the accumulation of such shortfalls.
 - (e) The deficit affects investment while the debt affects exports.
21. High government deficits will cause
- (a) the government to raise interest rates to finance its deficit.
 - (b) consumption by households to fall.
 - (c) consumption by households to rise.
 - (d) an increase in aggregate demand.
 - (e) a fall in unemployment.

22. An increase in the money supply will effect the economy in the short term by
- (a) increasing consumption and raising the interest rate.
 - (b) increasing consumption and lowering investment.
 - (c) decreasing consumption and lowering investment.
 - (d) increasing consumption and raising investment.
 - (e) decreasing consumption and lowering investment.
23. The Central Bank has all of the following tasks **except**
- (a) determining the money supply.
 - (b) regulating banks.
 - (c) setting fiscal policy.
 - (d) acting as a lender to the government.
 - (e) acting as a lender of last resort to other banks.
24. The unemployment trap refers specifically to
- (a) people who get trapped in low paying jobs.
 - (b) people who find it better to remain unemployed than take low wage jobs.
 - (c) school leavers who cannot get a job without experience and cannot get experience without a job.
 - (d) more jobs being located in larger cities.
 - (e) labour market inflexibility.
25. The Natural Rate of Unemployment is estimated by
- (a) measuring unemployment in the agricultural sector.
 - (b) measuring unemployment among environmental workers.
 - (c) averaging unemployment within the European Union.
 - (d) averaging unemployment over the last 10 years.
 - (e) surveying the unemployed.
26. The general history of money can be summarised as follows:
- (a) paper money then fiat money then legal tender.
 - (b) convertible money then paper money then commodity money.
 - (c) commodity money then convertible money then fiat money.
 - (d) Gresham's law.
 - (e) commodity money then fiat money then paper money.
27. One of the reasons given for high European unemployment is
- (a) hysteresis: the economies are accustomed to high unemployment.
 - (b) greater labour market inflexibility in Europe.
 - (c) stronger European trade unions.
 - (d) more generous social benefits in Europe.
 - (e) all of the above.

28. The deposit multiplier is
- (a) the way that fiscal policy affects the economy.
 - (b) the inverse of the reserve requirement.
 - (c) the reserve requirement multiplied by the level of deposits.
 - (d) lower because of the high level of imports.
 - (e) set by the government.
29. If the reserve requirement is 5%, then the deposit multiplier is
- (a) 5
 - (b) 10
 - (c) 20%
 - (d) 20
 - (e) not enough information is given.
30. Assuming there are no taxes, and the MPC is .75 and the marginal propensity to buy imports is .15, then the multiplier is
- (a) 5
 - (b) 10
 - (c) 2.5
 - (d) 1.11
 - (e) not enough information is given.
31. Give your answer from question 30, suppose that government spending increases by £1000, what is the total effect on GDP?
- (a) £5,000
 - (b) £10,000
 - (c) £2,500
 - (d) 1,110
 - (e) £900
32. Money supply in Ireland
- (a) is varied with the level of GDP.
 - (b) is fixed and determined by the government.
 - (c) varies depending on the politicians in power.
 - (d) is fixed and determined by the Central Bank.
 - (e) is determined by the level of foreign investment.
33. A decrease in the Short Term Facility (STF) by the Irish Central Bank has which of the following effects:
- (a) increases the value of the pound.
 - (b) increases the amount of loans in the banking system.
 - (c) causes economic downturns.
 - (d) lowers the level of investment in the economy.
 - (e) none of the above

34. Which one of the following statements about Central Bank operations is false?
- (a) Selling government bonds increases the money supply.
 - (b) Selling government bonds increases the interest rate.
 - (c) Buying government bonds increases the money supply.
 - (d) Buying government bonds reduces the interest rate.
 - (e) Buying government bonds decreases the value of the domestic currency.
35. When investors and lenders are choosing how much loanable funds to lend, they typically
- (a) have a preference for risk.
 - (b) have a preference for higher rates of return.
 - (c) have an aversion to risk.
 - (d) are indifferent about interest rates and risk.
 - (e) both (b) and (c).
36. The interest rate or rate of return on an investment
- (a) decreases with the risk of the investment.
 - (b) decreases with the length of the investment.
 - (c) increases with the risk of the investment.
 - (d) is the same no matter what level of risk is associated with the investment.
 - (e) both (a) and (b).
37. Which of the following is **not** a characteristic or job of the Irish Central Bank?
- (a) It is politically independent.
 - (b) It is a banker to the state.
 - (c) It determines the money supply.
 - (d) It keeps government deficit spending to within 3% of GDP.
 - (e) It implements exchange rate policy.
38. All of the following are examples of Central Bank monetary policy except:
- (a) changing the interest rates on savings accounts.
 - (b) changing the discount rate.
 - (c) buying or selling government bonds.
 - (d) changing the reserve requirement.
 - (e) They are all examples of monetary policy.

39. Moral suasion as a monetary policy refers to
- (a) the political beliefs of the Central Bank governor.
 - (b) the ethical guidelines for Open Market operations.
 - (c) the ability of the Central Bank to lend to other banks.
 - (d) the ability of the Central Bank to refrain from printing too much money.
 - (e) the ability of the Central Bank to persuade banks not to loan too much money.
40. Which of the following is **not** a cause of inflation?
- (a) Demand Pull
 - (b) Cost Push
 - (c) Too much money chasing too few goods.
 - (d) Speculators
 - (e) Expectations
41. Which of the following will cause long run aggregate supply to shift outwards and to the right?
- (a) an increase in taxes
 - (b) a decrease in the labour force
 - (c) an increase in the capital in an economy
 - (d) an increase in government spending
 - (e) both (b) and (d)
42. The Oil Embargo in 1973 had which of the following effects?
- (a) decreased short run aggregate supply
 - (b) decreased long run aggregate supply
 - (c) increased inflation
 - (d) increase unemployment
 - (e) all of the above
43. Ireland's monetary policy is limited because
- (a) there are a high degree of exports.
 - (b) the government is currently running a surplus.
 - (c) Ireland is currently in a fixed exchange rate regime.
 - (d) the Central Bank is politically independent.
 - (e) there are no limitations to monetary policy.
44. The current account measures
- (a) all monetary transactions between the home country and the rest of the world.
 - (b) the amount of all visible and invisible trade.
 - (c) the amount of inflows and outflows of capital or assets.
 - (d) the amount of the government's budget deficit or surplus.
 - (e) the current level of prices in the economy.

45. According to growth theory, all of the following are factors which will help an economy to produce more **except**
- (a) the amount of savings in a population.
 - (b) the skill level of its population.
 - (c) the size of its public sector.
 - (d) the amount of capital in an economy.
 - (e) the level of technology in an economy.
46. Which of the following is **not** true.
- (a) Neoclassical economics emphasises harmony more than Marxian economics.
 - (b) Neoclassical economics emphasises social relations whereas Marxian economics emphasises the allocation of resources.
 - (c) Neoclassical economics emphasises individual choice much more than institutional economics.
 - (d) Marxian economics emphasises change over time more than neoclassical economics.
47. Which school of economics argues that individual behaviour is determined by socially constructed habits and patterns of action.
- (a) neoclassical
 - (b) Marxian
 - (c) institutional
 - (d) all of the above
48. Policies advocating fundamental change in society are most consistently associated with
- (a) neoclassical economics
 - (b) Marxian economics
 - (c) institutional economics
 - (d) Keynesian economics
49. Opportunity cost is
- (a) the next best alternative foregone
 - (b) created by the necessity of choice
 - (c) implied by the scarcity of resources
 - (d) all of the above
50. Production at point a
- (a) is preferable to production at point b
 - (b) is not an available option
 - (c) uses fewer resources than point b
 - (d) involves producing more apples than point b

51. Which of the following would lead to a shift inward of the production possibilities frontier.
- (a) technical change in one industry but no technical change in another
 - (b) an increase in consumption
 - (c) emigration of labour
 - (d) inefficient utilisation of resources
52. If one group of people acquires their standard of living from the labour of another group of people
- (a) this must be the result of fair trade
 - (b) the second group of people is exploiting the first
 - (c) the economy must be capitalist
 - (d) both groups are considered to be classes
53. In the Marxian general model, the corn in the third remainder pile
- (a) represents necessary labour
 - (b) is what is left for providing the standard of living of the labouring class
 - (c) is the seed available for next years planting
 - (d) represents the surplus
54. According to the institutional school individual choices
- (a) create institutional conditions
 - (b) are regulated by institutions
 - (c) are never observed in real economies
 - (d) only exist under capitalism
55. Wage labour is key to which schools definition of capitalism
- (a) neoclassical
 - (b) Marxian
 - (c) institutional
 - (d) none of the above
56. The neoclassical school argues that
- (a) prices determine what is produced but profits determine how things are produced and who gets what.
 - (b) instability is important in understanding the basics of the economy
 - (c) prices determine what is produced, how things are produced and who gets what.
 - (d) demand determines what is produced and who gets what while profits determine how things are produced.
57. A decrease in the price of resources would cause
- (a) price to fall and quantity to rise
 - (b) price to fall and quantity to fall
 - (c) price to rise and quantity to rise
 - (d) price to rise and quantity to fall

58. An increase in the number of consumers would cause
- (a) price to fall and quantity to rise
 - (b) price to fall and quantity to fall
 - (c) price to rise and quantity to rise
 - (d) price to rise and quantity to fall
59. A consumer's utility is maximised
- (a) where the budget line is just tangent to an indifference curve
 - (b) where the total budget can be increased by switching consumption from one good to another.
 - (c) at the highest indifference curve represented on the indifference map
 - (d) where the goods are chosen in order to produce the highest budget line
60. A change in price will
- (a) alter the slope of a consumer's indifference curves
 - (b) cause two indifference curves to cross
 - (c) alter the slope of the budget line
 - (d) create two budget constraints where before there was only one
61. The price of the pint is £2.00 and 100,000 are sold. The elasticity coefficient of demand (in absolute value terms) is 5. The price is lowered to £1.80. How many will be sold?
- (a) 200,000
 - (b) 50,000
 - (c) 150,000
 - (d) 180,000
62. As income rises a larger percentage of income is spent on the good. This good is a
- (a) necessity
 - (b) luxury
 - (c) substitute
 - (d) perfectly inelastic
63. In the expression for the Marxian rate of profit, output per hour is found by multiplying output per unit of effort by
- (a) materials and machines used up
 - (b) the price level, P_z
 - (c) effort per hour
 - (d) the hourly wage

64. In the expression for the Marxian rate of profit, which of the following determinants of the profit rate is found in both the numerator and the denominator?
- (a) price of output
 - (b) wages
 - (c) output per hour
 - (d) output per unit of effort
65. In the mark up pricing model, prices are determined by technology and
- (a) the distribution of income
 - (b) the level of demand
 - (c) costs
 - (d) customs
66. Which of the following can be either positive or negative?
- (a) the income effect
 - (b) the substitution effect
 - (c) the wealth effect
 - (d) all of the above are positive
67. The percentage change in quantity of good a divided by the percentage change in price of good b is
- (a) the consumer utility maximisation rule
 - (b) income elasticity
 - (c) cross price elasticity
 - (d) the substitution effect
68. A change in which of the following would cause a shift along the demand curve
- (a) a change in technology
 - (b) a change in price
 - (c) a change in consumer preferences
 - (d) a change in the price of related goods
69. The government is considering building a new motorway from Galway to Limerick which will reduce the average journey time by 30 minutes.
- (a) a reasonable method of measuring the benefits of this saving in time is to assume that the price of leisure is the gross (before tax) wage rate.
 - (b) a reasonable method of measuring the benefits of this saving in time is to survey people who travel on this route and ask them how much would they be willing to pay for this motorway.
 - (c) an economic value can never be put on time.
 - (d) both (a) and (b) are true.

70. The government is considering building a new motorway from Galway to Limerick. Suppose that in addition to the savings on travel time, the government estimates that, on average, the motorway will reduce the number of fatalities on this route by one each year.
- (a) Since life has an infinite value, the government should definitely proceed with this project.
 - (b) The value of life can be estimated by calculating the present value of a person's earnings.
 - (c) The value of life can be estimated by calculating the differences in wage rates that individuals earn in occupations with different levels of risk.
 - (d) The methods in (b) and (c) are both useful but imperfect ways of calculating the value of saving life.
71. A pure public good is one where consumption of it is
- (a) non-rivalrous
 - (b) non-excludable
 - (c) both (a) and (b)
 - (d) provided by the government
 - (e) both (a) and (d)
72. Which of the following is the best example of a good whose consumption is non-rivalrous and excludable?
- (a) uncongested toll roads
 - (b) clothing
 - (c) national defence
 - (d) congested non-toll roads.
73. A negative production externality means that
- (a) the marginal social cost curve is above and to the left of the marginal private cost curve
 - (b) the marginal social cost curve is below and to the right of the marginal private cost curve
 - (c) the marginal social benefit curve is above and to the right of the marginal private benefit curve
 - (d) the marginal social benefit curve is below and to the left of the marginal private benefit curve

74. A key issue in the decision by the Competition Authority to allow the Guinness -UBH acquisition to proceed was foreclosure. This refers to
- (a) the possibility that non Guinness wholesalers might have difficulty in obtaining access to Guinness products.
 - (b) the possibility that brewers competing with Guinness might have difficulty in having their products distributed through UBH.
 - (c) Guinness would have to disclose to their competitors how much Guinness was being sold through UBH.
 - (d) Brewers competing with Guinness were afraid that UBH would disclose to Guinness how much of non Guinness products was being sold in certain pubs
 - (e) Both (a) and (b)
75. Which of the following markets can best be described as monopolistically competitive?
- (a) toothpaste
 - (b) milk
 - (c) electricity
 - (d) stout
76. In the long run, monopolistically competitive firms
- (a) make positive economic profits
 - (b) make negative economic profits
 - (c) may make either positive or negative economic profits
 - (d) make zero profit
77. Oligopoly is a market structure in which
- (a) firms are price takers
 - (b) there exist numerous firms, each producing a product that is a close, but imperfect, substitute for the products of other firms
 - (c) there are only a few sellers
 - (d) there is only one seller
78. The efficient level of pollution in the environment is
- (a) zero
 - (b) zero if the cleanup costs are less than £1 billion
 - (c) the level at which the marginal cost of cleanup equals the marginal benefit of the cleanup
 - (d) that which preserves all species for future generations
 - (e) whatever level the free market decides

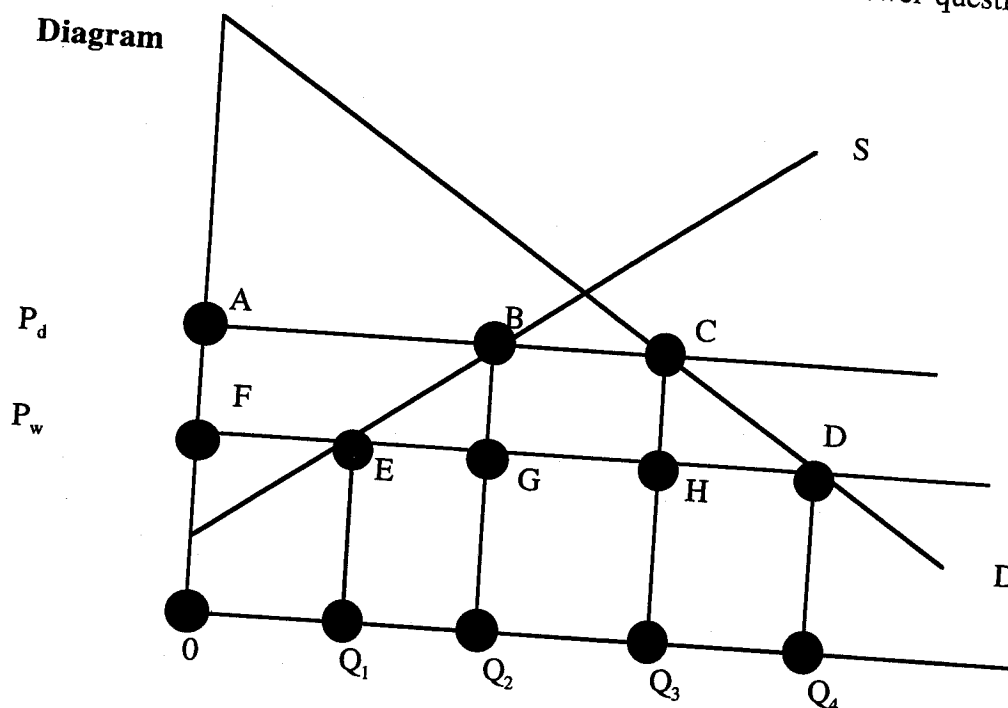
79. If the United States has a comparative advantage in the production of a good, then
- (a) fewer resources are required to produce the good in the United States
 - (b) the United States also has an absolute advantage in the production of the good
 - (c) the relative cost of producing the good is lower in the United States
 - (d) the United States will import the good
 - (e) all of the above
80. If the United States has absolute advantage in the production of a good
- (a) production of the good in the United States is more efficient and requires fewer resources
 - (b) the United States also has comparative advantage in the production of the good
 - (c) the relative cost of producing the good is lower in the United States
 - (d) the United States will import the good
 - (e) the United States will export the good
81. The free-rider problem refers to
- (a) the idea that public transportation always runs large deficits
 - (b) the idea that when people can enjoy a public good without paying for it, they often do not contribute to the cost of providing it.
 - (c) the idea that markets fail to allocate resources efficiently when there are externalities
 - (d) the idea that the marginal cost of an additional consumer enjoying a pure public good is zero
 - (e) none of the above
82. If, when the total quantity of all inputs is doubled, output exactly doubles, the production function exhibits
- (a) constant returns
 - (b) diminishing returns
 - (c) increasing returns
 - (d) economies of scale
 - (e) none of the above
83. Fixed inputs are
- (a) inputs that cannot be moved
 - (b) inputs that can be purchased in only fixed configurations
 - (c) inputs that can be purchased at a fixed price
 - (d) inputs that do not depend on the level of output
 - (e) none of the above

84. Marginal revenue
- (a) is less than price for the competitive firm because as it sells more output, it must lower the price
 - (b) equals price for the competitive firm
 - (c) is the revenue that the firm receives for selling another unit of output
 - (d) is the extra profit that the firm receives from selling another unit of output, after accounting for all opportunity costs
 - (e) both (b) and (c)
85. The firm supplies the profit-maximising level of output when
- (a) marginal revenue equals price
 - (b) marginal revenue equals marginal cost
 - (c) economic profits are zero
 - (d) accounting profits are zero
 - (e) sunk costs equal fixed costs
86. The extra cost of producing an additional unit of output is called
- (a) marginal cost
 - (b) fixed cost
 - (c) overhead cost
 - (d) sunk cost
 - (e) marginal revenue
87. Consider the Demand for agricultural products in Western Europe since 1945.
- (a) Demand has increased rapidly because of high population growth and a high income elasticity for food
 - (b) Demand has increased slowly because of low population growth and a high income elasticity for food
 - (c) Demand has increased slowly because of low population growth and a low income elasticity for food
 - (d) Demand has not changed at all since 1945
88. The rapid increase in the price of new houses in Ireland during the past five years has been caused by
- (a) supply increasing, demand falling
 - (b) supply and demand both increasing at the same rate
 - (c) demand increasing by more than supply
 - (d) none of the above
89. Which of the following has not been a factor in shifting the demand for houses in Ireland during the past five years
- (a) the increase in emigration among people aged 25-44
 - (b) the increase in small households
 - (c) the increase in employment
 - (d) the reduction in interest rates

90. An increase in imports from the UK will
- (a) push the supply curve of Irish pounds to the left, leading to an increase in the IR£/UK£ exchange rate
 - (b) push the demand curve for Irish pounds to the right, leading to an increase in the IR£/UK£ exchange rate
 - (c) push the demand curve for Irish pounds to the left, leading to a reduction in the IR£/UK£ exchange rate
 - (d) push the supply curve of Irish pounds to the right, leading to a reduction in the IR£/UK£ exchange rate
 - (e) none of the above
91. Suppose US national income increases. All other things being equal, the IR£/US\$ exchange rate
- (a) increases on account of a rise in imports from the US
 - (b) decreases on account of a rise in imports from the US
 - (c) increases on account of rise in exports to the US
 - (d) decreases on account of a rise in exports to the US
 - (e) none of the above
92. In the Prisoner's Dilemma game
- (a) both prisoners act in their own self-interest; this leads to the best alternative from their combined standpoint
 - (b) both prisoners co-operate to bring about the best alternative
 - (c) acting in their own self-interest, the prisoners bring about the worst alternative
 - (d) it is impossible to say what happens because each prisoner must worry about the reactions of the other
 - (e) none of the above

Consider a situation where the government of a small country puts a tariff on a particular agricultural commodity. Use the diagram below to answer questions 93 and 94.

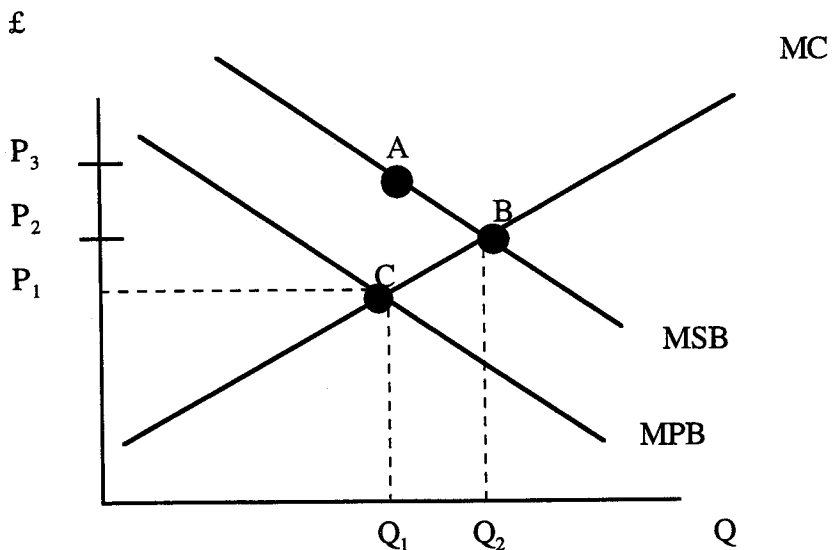
Diagram



D - domestic demand; S - domestic supply. P_w - world price; P_d - domestic price after the tariff has been imposed.

93. Which of the following statements is true
- (a) Before the tariff, there were no imports of this product into the domestic country
 - (b) After the tariff, consumers don't consume any of this good
 - (c) Before the tariff imports of this good were equal to $Q_4 - Q_1$
 - (d) After the tariff, domestic producers supply $0Q_3$
94. Which of the following statements is false
- (a) The gain to domestic producers from the tariff is area ABEF
 - (b) The revenue collected by the government from the tariff is area BCHG
 - (c) The loss to consumers from the tariff is area ACHF
 - (d) Before the tariff, domestic production was equal to $0Q_1$

Use this diagram to answer the following two questions (questions 95 and 96).



MSB - Marginal Social Benefit
MPB - Marginal Private Benefit
MC - Marginal Cost

95. (a) The diagram illustrates a good that has positive consumption externalities.
(b) The diagram illustrates a good that has negative consumption externalities.
(c) The private market will produce the efficient quantity of this good without a subsidy
(d) Consumption of this good should be taxed.
(e) Both (a) and (c) are true.
96. (a) A subsidy equal to the distance AC should be given to consumers of this good.
(b) Without a subsidy, there will be a deadweight loss of area ABC
(c) The socially efficient outcome is that Q_2 is consumed at a price P_2 .
(d) All of the above are true
(e) None of the above are true.

97. Suppose there are only 2 firms producing cigarettes. Each firm has to decide whether or not to spend any money advertising its product. The profits to each firm under each outcome are given in the following table.

		FIRM 1	
		DA	A
FIRM 2	DA	$\Pi_1 = 400$ $\Pi_2 = 400$	$\Pi_1 = 600$ $\Pi_2 = 0$
	A	$\Pi_1 = 0$ $\Pi_2 = 600$	$\Pi_1 = 300$ $\Pi_2 = 300$

DA = Don't Advertise

A = Advertise

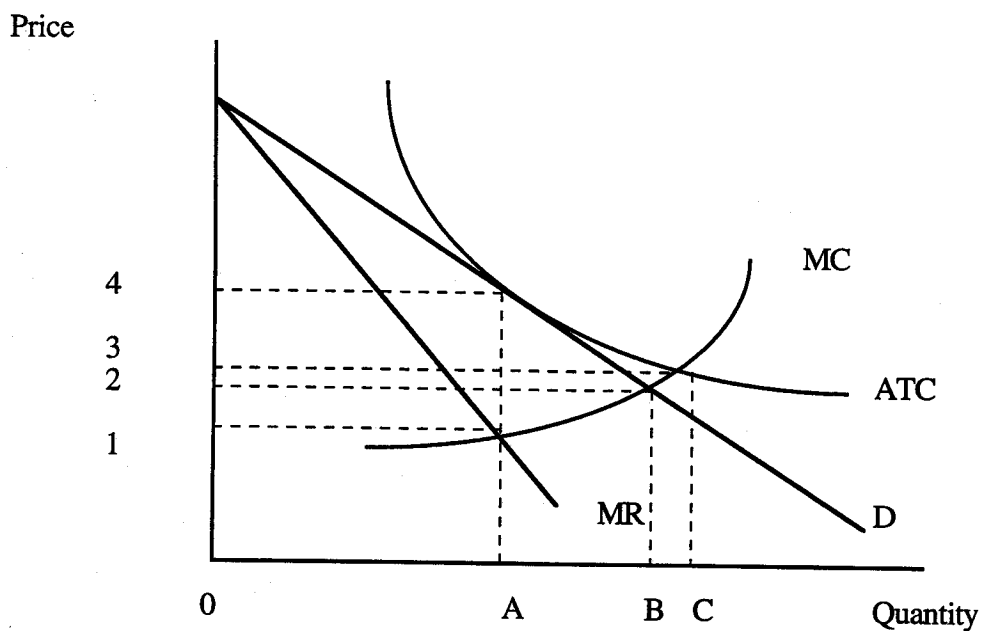
Π_1 = Profits to Firm 1

Π_2 = Profits to Firm 2

A Nash equilibrium is a combination of strategies such that neither firm has any incentive to change strategies, given the strategy of its opponent.

- (a) In this example, the Nash equilibrium is $\Pi_1 = 300, \Pi_2 = 300$.
- (b) There is no Nash equilibrium in this example.
- (c) One Nash equilibrium in this example is $\Pi_1 = 600, \Pi_2 = 0$.
- (d) The Nash equilibrium is $\Pi_1 = 400, \Pi_2 = 400$.

Use this diagram to answer the following three questions (questions 98, 99, 100).



98. In the above diagram the profit maximising output level is

- (a) OA
- (b) OB
- (c) OC
- (d) none of the above.

99. In the above diagram the profit maximising price level is

- (a) 01
- (b) 02
- (c) 03
- (d) 04

100. In the above diagram the firm is

- (a) making positive economic profit
- (b) making zero economic profit
- (c) making negative economic profit
- (d) one cannot tell