

Question Paper

Economics (CFA520): April 2008

- Answer all 74 questions.
- Marks are indicated against each question.

Total Marks : 100

[<Answer>](#)

1. Which of the following statements is **false**?

- (a) There exists a difference between demand and quantity demanded
- (b) In case of Giffen goods the demand curve slopes upwards from left to right
- (c) Quantity demanded is time sensitive because it is a flow concept
- (d) Increase in population decreases the quantity demanded
- (e) There will be a shift in the demand curve only when the quantity demanded at each level of price changes.

(1 mark)

[<Answer>](#)

2. The demand function of a monopolist is given as follows:

$$P = 500 - 8Q$$

If the marginal cost of the firm is $MC = 9Q$, the profit maximizing price of the firm is

- (a) Rs.320
- (b) Rs.340
- (c) Rs.360
- (d) Rs.350
- (e) Rs.355.

(2 marks)

[<Answer>](#)

3. The linear demand function of a commodity is given as $P = 8 - Q$. What will be the absolute value of price elasticity of demand when the price is Rs.6?

- (a) 0.8
- (b) 0.9
- (c) 2.0
- (d) 1.0
- (e) 3.0.

(2 marks)

[<Answer>](#)

4. What is the marginal revenue when the price is Rs. 80 per unit and the price elasticity of demand is 4?

- (a) Rs.45
- (b) Rs.50
- (c) Rs.60
- (d) Rs.65
- (e) Rs.70.

(2 marks)

[<Answer>](#)

5. A firm supplied 5,000 diaries at the rate of Rs. 20 per diary to an IT company. Later on the price per diary has increased to Rs. 35. Due to this the supply has increased to 6,500 units. What is arc price elasticity of supply?

- (a) 0.448
- (b) 0.468
- (c) 0.478
- (d) 0.489
- (e) 0.544.

(2 marks)

[<Answer>](#)

6. The demand function for a commodity is estimated as follows:

$$Q_d = 6,50,000 - 45P$$

The arc price elasticity of demand between the prices of Rs. 5,000 and Rs. 6,000 is

- (a) - 0.615
- (b) - 0.714
- (c) - 0.748
- (d) - 0.789

(e) – 0.864.

(2 marks)

[<Answer>](#)7. Which of the following statements is **not true**?

- (a) Want satisfying power of a good is called as utility
- (b) There exists a difference between choice and preference
- (c) The concept of utility is developed to explain the basic principles of consumer choice and behavior
- (d) A rational consumer is one who allocates his spending in such a way that the preferred combination gives him the maximum satisfaction
- (e) According to ordinalist approach, the utility can be measured in subjective units.

(1 mark)

[<Answer>](#)

8. The quantity of a good is called as the 'satiation quantity', if the marginal utility of the good is

- (a) Equal to the total utility
- (b) Greater than the total utility
- (c) Negative
- (d) Equal to zero
- (e) Maximum.

(1 mark)

[<Answer>](#)

9. The reason why a consumer pays zero or a very low amount of money for certain items with high benefits is explained by

- (a) Law of demand
- (b) Law of variables proportions
- (c) Consumer surplus
- (d) Producer's surplus
- (e) Paradox of value.

(1 mark)

[<Answer>](#)10. The indifference curve will **not** be convex to origin in case of

- I. Normal goods.
- II. Perfect substitutes.
- III. Perfect complements.

- (a) Only (I) above
- (b) Only (II) above
- (c) Only (III) above
- (d) Both (I) and (II) above
- (e) Both (II) and (III) above.

(1 mark)

[<Answer>](#)

11. Mr. Rammohan consumes two goods, A and B. At equilibrium, marginal utility of A is 250 utils and the price of A is Rs. 50. If the price of B is Rs. 70, the marginal utility of good B at equilibrium is

- (a) 200 utils
- (b) 250 utils
- (c) 300 utils
- (d) 350 utils
- (e) 400 utils.

(2 marks)

[<Answer>](#)

12. The total utility function of Mr. Rama Rao is given as follows:

$$U = 40XY$$

Where, X and Y represent the quantities of two goods consumed. The price of goods X and Y are Rs.2 and Rs.4 respectively. If Mr. Rama Rao attains equilibrium by consuming 40 units of commodity X, the number of units of good Y consumed by Mr. Rama Rao is

- (a) 10 units
- (b) 20 units
- (c) 30 units
- (d) 35 units
- (e) 40 units.

(2 marks)

[<Answer>](#)13. For a consumer the utility function is estimated as $U = 20X^{1.5}$. If the price of the good is Rs.90 per unit, the

consumer will consume

- (a) 7 units
- (b) 8 units
- (c) 9 units
- (d) 10 units
- (e) 11 units.

(2 marks)

[<Answer>](#)

14. Consider the table below:

Labor (units)	TP_{Labor} (units)
1	120
2	160
3	210
4	240
5	270
6	300

What is the Marginal Product of 3rd unit of labor?

- (a) 70
- (b) 50
- (c) 40
- (d) 60
- (e) 30.

(1 mark)

[<Answer>](#)

15. Which of the following statements is **false**?

- (a) Average product cannot be zero
- (b) Average product will always be greater than marginal product
- (c) Marginal product is zero when total product is maximum
- (d) For first unit of variable input the marginal product is the same as total product
- (e) Marginal product increases only when the total product is increasing at an increasing rate.

(1 mark)

[<Answer>](#)

16. The shape of Isocost line is

- (a) Convex to origin
- (b) Concave to origin
- (c) U-shaped
- (d) Downward sloping straight line from left to right
- (e) L-shaped.

(1 mark)

[<Answer>](#)

17. The production function of Kalyan and co. is given as $TP_L = 30L - 1.5L^2$. The number of labor after which marginal production becomes negative is

- (a) 8 units
- (b) 9 units
- (c) 10 units
- (d) 11 units
- (e) 12 units.

(2 marks)

[<Answer>](#)

18. The average product of labor (AP_L) is given as $60L - L^2$, the maximum possible total product of labor (TP_L) is

- (a) 30,000 units
- (b) 32,000 units
- (c) 33,000 units
- (d) 35,000 units
- (e) 36,000 units.

(2 marks)

[<Answer>](#)

19. Which of the following shows the different input points required to produce the same level of output?

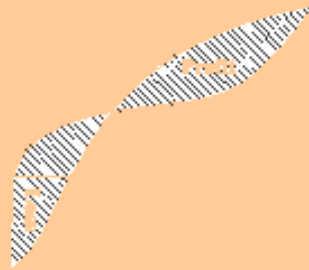
- (a) Isocost line
- (b) Isoquant

- (c) Production possibility curve
- (d) Indifference curve
- (e) Demand curve.

(1 mark)

[<Answer>](#)

20. Refer to the diagram below:



At which of the following level(s) of output the firm can break even?

- I. Q_1 .
- II. Q_2 .
- III. Q_3 .

- (a) Only (I) above
- (b) Only (II) above
- (c) Only (III) above
- (d) Both (I) and (II) above
- (e) Both (I) and (III) above.

(1 mark)

[<Answer>](#)

21. Which of the following statements is **false**?

- (a) Isoquants are useful only when two variable inputs are used
- (b) Isoquants are also called as production indifference curves
- (c) Marginal Rate of Substitution (MRS) is expressed through an isoquant
- (d) Two isoquants never touch each other
- (e) A higher isoquant represents a higher level of output.

(1 mark)

[<Answer>](#)

22. The short run production function of a firm is estimated to be

$$Q = 12L^2 - L^3$$

If the firm is a rational entity, it would employ labor upto

- (a) 5 units
- (b) 6 units
- (c) 7 units
- (d) 8 units
- (e) 9 units.

(2 marks)

[<Answer>](#)

23. The time cost when expressed in terms of money is referred as

- (a) Implicit cost
- (b) Explicit cost
- (c) Indirect cost
- (d) Economic cost
- (e) Variable cost.

(1 mark)

[<Answer>](#)

24. The average fixed cost of production

- (a) Increases continuously with increase in output
- (b) Decreases continuously with increase in output

- (c) First increases and then decreases as the output expands
- (d) First decreases and then increases as the output expands
- (e) Remains constant with increase in production.

(1 mark)

[<Answer>](#)

25. Which of the following economies of scales is also called as 'stochastic economies'?

- (a) Labor economies
- (b) Technical economies
- (c) Inventory economies
- (d) Selling economies
- (e) Managerial economies.

(1 mark)

[<Answer>](#)

26. If total cost function for a firm is $TC = 48Q - 6Q^2 + 2Q^3$, the minimum possible average cost is

- (a) Rs. 41.50
- (b) Rs. 42.50
- (c) Rs. 43.50
- (d) Rs. 44.50
- (e) Rs. 45.50.

(2 marks)

[<Answer>](#)

27. A firm's average variable cost function is

$$AVC = 15 - 7.5Q + 0.25Q^2.$$

If the fixed cost is Rs. 400, the output at which the marginal cost will be minimum is

- (a) 8 units
- (b) 10 units
- (c) 12 units
- (d) 13 units
- (e) 15 units.

(2 marks)

[<Answer>](#)

28. Which of the following statements is **false**?

- (a) In the long run, there is no fixed cost
- (b) Fixed costs are not dependent on the firm's level of output
- (c) The difference between average total cost and average variable cost indicates the amount of average fixed cost of a firm
- (d) Marginal cost is equal to total cost divided by number of units of output produced
- (e) When the output is zero, the total cost of the firm will be just equal to its fixed costs.

(1 mark)

[<Answer>](#)

29. A toy manufacturing firm has incurred a fixed cost of Rs.4,97,200. It sells each unit for Rs.650. The average variable cost is Rs.85. What will be the break-even quantity and revenue respectively?

- (a) 880 units and Rs.5,72,000
- (b) 860 units and Rs.5,72,000
- (c) 880 units and Rs.7,52,000
- (d) 860 units and Rs.7,52,000
- (e) 840 units and Rs.5,72,000.

(2 marks)

[<Answer>](#)

30. The total cost function of a firm is given as $TC = 500 - 2Q + 3Q^2$. If the current output is 5 units, average cost is

- (a) Rs.110
- (b) Rs.111
- (c) Rs.112
- (d) Rs.113
- (e) Rs.114.

(2 marks)

[<Answer>](#)

31. Which of the following is **not** a pecuniary economies of scale?

- (a) Reduction in raw material price bought in by a huge quantity at a discounted rate
- (b) A huge capital borrowing availed at a least rate
- (c) Use of reserve capacity to avoid disruption due to machine breakdown
- (d) Lower advertising rate availed by a large firm by advertising on a large scale
- (e) Reduction in transport cost due to large volume.

(1 mark)

[<Answer>](#)

32. Refer to the following table:

(Rs. in thousands)		
Output	Marginal Revenue/Price	Average Total Cost
1	20	68.00
2	20	37.00
3	20	26.00
4	20	20.76
5	20	17.80
6	20	17.60
7	20	15.72
8	20	16.24
9	20	18.00
10	20	21.00

The above table shows the marginal approach of profit calculation in a perfectly competitive market. What is the total profit at 6th unit of output?

- (a) Rs.14.4 thousand
- (b) Rs.13.2 thousand
- (c) Rs.15.6 thousand
- (d) Rs.16.4 thousand
- (e) Rs.17.6 thousand.

(2 marks)

[<Answer>](#)

33. If there are two firms each of them catering 25% of total sales of the industry and five other equal sized firms then what is the value of Herfindahl index?

- (a) 0.150
- (b) 0.175
- (c) 0.165
- (d) 0.155
- (e) 0.160.

(1 mark)

[<Answer>](#)

34. Which of the following statements is **false** about monopoly?

- (a) There are barriers to entry
- (b) A monopolist's individual demand curve possesses the same general properties as the industry demand curve for a perfectly competitive market
- (c) A monopolist may maximize profit with respect to variations of either output or price
- (d) The monopolist must increase the price of every unit in order to sell additional units
- (e) The rate decline in the MR of monopolist is twice the rate of decline of price.

(1 mark)

[<Answer>](#)

35. Which of the following are decided by the central agency in a Cartel?

- I. Quantity to be produced.
- II. Price of the product.
- III. Allocation of production among the members.
- IV. Distribution of profits among the members.

- (a) Both (I) and (II) above
- (b) Both (III) and (IV) above
- (c) (I), (II) and (III) above
- (d) (I), (II) and (IV) above
- (e) All (I), (II), (III) and (IV) above.

(1 mark)

[<Answer>](#)

36. The diagram below depicts the price leadership (by low cost firm) model of duopoly market, where the two firms produce a homogeneous product at two different costs (MC_1 is marginal cost curve of first firm and MC_2 that of the second one). If the second firm decides not to follow the leader then at what point its profit will be maximized?

- (a) A
- (b) B
- (c) C
- (d) D
- (e) E.

(1 mark)

[<Answer>](#)

37. Alpha Ltd., has a monopoly in producing a product X. The demand function for this product is estimated as $Q = 75 - P$. The total cost function is $TC = 25Q$. What is the profit?

- (a) Rs.400
- (b) Rs.625
- (c) Rs.725
- (d) Rs.600
- (e) Rs.450.

(2 marks)

[<Answer>](#)

38. What will happen to the consumption function when there is an increase in lump-sum taxes?

- (a) It shifts upward by the increase in taxes, ceteris paribus
- (b) It shifts downward by the increase in taxes, ceteris paribus
- (c) It shifts downward by the MPC times the increase in taxes, ceteris paribus
- (d) It shifts upward by the MPS times the increase in taxes, ceteris paribus
- (e) It shifts upward by the MPC times the increase in taxes, ceteris paribus.

(1 mark)

[<Answer>](#)

39. Which of the following shift the LM curve to the right?

- I. Increase in money supply.
- II. Purchase of bonds by the RBI.
- III. Decrease in the price level.

- (a) Only (I) above
- (b) Only (II) above
- (c) Both (I) and (II) above
- (d) Both (II) and (III) above
- (e) All (I), (II) and (III) above.

(1 mark)

[<Answer>](#)

40. The following data is taken from National Income Accounts of a country:

Particulars	Rs. Crore
National income	5,428
Transfer payments	968
Undistributed corporate profits	112
Corporate tax	300
Personal disposable income	5,172

Personal tax payments are

- (a) Rs. 786 crore
- (b) Rs. 556 crore
- (c) Rs. 812 crore
- (d) Rs.1,112 crore
- (e) Rs.1,424 crore.

(2 marks)

[<Answer>](#)

41. The following information is extracted from National Income Accounts of an economy:

Investment by business sector	=	800 MUC
Corporate profit tax	=	400 MUC
Dividends paid by the business sector	=	120 MUC
Retained earnings	=	160 MUC

Corporate profits for the economy is

- (a) 490 MUC
- (b) 560 MUC
- (c) 680 MUC
- (d) 1,200 MUC
- (e) 1,480 MUC.

(2 marks)

[<Answer>](#)

42. Which of the following is **true** of velocity of money?

- (a) It is the average use of money in purchasing final output
- (b) It is the use of money in purchasing final output
- (c) It is the average use of money by consumers in purchasing consumer goods
- (d) It is the average use of money by the business sector
- (e) It is the average use of money by the Government.

(1 mark)

[<Answer>](#)

43. The consumption function for a two sector economy is given as $C = 1,400 + 0.25Y$ and investment is an autonomous component. If equilibrium income is 8,000 MUC, what is the investment?

- (a) 600 MUC
- (b) 800 MUC
- (c) 1,400 MUC
- (d) 4,600 MUC
- (e) 8,000 MUC.

(2 marks)

[<Answer>](#)

44. A decrease in the price level results in _____ curve, and an increase in the expected price level causes _____ curve.

- (a) A movement along the aggregate supply, a downward shift in the aggregate supply
- (b) A movement along the aggregate supply, an upward shift in the aggregate supply
- (c) A downward shift in the aggregate supply, an upward shift in the aggregate supply
- (d) An upward shift in the aggregate supply, a downward shift in the aggregate supply
- (e) A movement along the aggregate supply, a movement along the aggregate demand.

(1 mark)

[<Answer>](#)

45. In the long run, if the budget deficit increases, it will

- (a) Lower interest rates leading to lower investment and hence lower output
- (b) Lower interest rates leading to higher investment and hence higher output
- (c) Increase interest rates leading to lower investment and hence lower output
- (d) Increase interest rates leading to higher investment and hence higher output
- (e) Keep the interest rates constant.

(1 mark)

[<Answer>](#)

46. An increase in aggregate output causes the demand for money to _____ and the interest rate to _____.

- (a) Decrease; decrease
- (b) Decrease; increase
- (c) Increase; decrease
- (d) Increase; increase
- (e) Remain constant; decrease.

(1 mark)

[<Answer>](#)

47. Consider the following data pertaining to a developing economy:

Consumption function (C)	=	$50 + 0.75Y_d$
Investment (I)	=	50 MUC
Government spending (G)	=	30 MUC

$$\text{Tax function (T)} = 0.1Y$$

At equilibrium, the budget surplus (deficit) of the developing economy is

- (a) (10) MUC
- (b) 10 MUC
- (c) 30 MUC
- (d) (30) MUC
- (e) 400 MUC.

(2 marks)

[<Answer>](#)

48. The balance on current account

- I. Equals the absolute value of the balance on capital account.
- II. Is financed by savings.
- III. Is net grants minus remittances.
- IV. Includes goods, services, and unilateral transfers.

- (a) Only (I) above
- (b) Both (I) and (II) above
- (c) Both (I) and (III) above
- (d) Both (I) and (IV) above
- (e) All (I), (II), (III) and (IV) above.

(1 mark)

[<Answer>](#)

49. Which of the following statements is/are **true**?

- I. Inflation decreases the purchasing power of money.
- II. During inflationary periods, people are encouraged to hoard and keep large stock of goods.
- III. High inflationary situations discourage entrepreneur from taking the risks involved in investing for future production.

- (a) Only (I) above
- (b) Only (II) above
- (c) Both (I) and (III) above
- (d) Both (II) and (III) above
- (e) All (I), (II) and (III) above.

(1 mark)

[<Answer>](#)

50. The narrow money M1 is

- (a) Currency in circulation
- (b) Currency in circulation + Demand deposits with the banking system
- (c) Currency in circulation + Demand deposits with the banking system + Other deposits with the RBI
- (d) Currency in circulation + Demand deposits with the banking system + Other deposits with the RBI + Post office saving bank deposits
- (e) Currency in circulation + Demand deposits with the banking system + Other deposits with the RBI + Total post office deposits.

(1 mark)

[<Answer>](#)

51. The IS function and LM function in an economy are estimated to be $Y = 4,800 + 0.5Y - 50i$ and $Y = 4,600 + 400i$ respectively. The investment function in the economy is $1,600 - 100i$. If the government spending increases by 200 MUC, which of the following is **true** about the interest rate in the economy?

- (a) Increases from 5.0% to 10.8%
- (b) Increases from 6.0% to 12.0%
- (c) Increases from 4.5% to 10.5%
- (d) Increases from 6.2% to 6.5%
- (e) Increases from 10.0% to 10.8%.

(1 mark)

[<Answer>](#)

52. The following information is available for a hypothetical economy:

Income elasticity of demand for real balances	3
Acceptable inflation rate	6%
Money multiplier	8

If the real GDP is desired to grow at 6%, what is the rate at which reserve money should grow?

- (a) 1%
- (b) 2%
- (c) 3%
- (d) 4%
- (e) 6%.

(1 mark)

[<Answer>](#)

53. An increase in government spending that lowers private spending is called as

- (a) Discretionary fiscal policy
- (b) Expansionary fiscal policy
- (c) Government debt
- (d) Crowding out
- (e) Contractionary fiscal policy.

(1 mark)

[<Answer>](#)

54. An IT professional who has been laid off during a recession is an example of

- (a) Frictional unemployment
- (b) Cyclical unemployment
- (c) Technological unemployment
- (d) Structural unemployment
- (e) Disguised unemployment.

(1 mark)

[<Answer>](#)

55. The monetary liabilities of the central bank of an economy are 25,000 MUC. The government money in the economy is 200 MUC. Currency deposit ratio for the economy is estimated to be 0.2 and reserve ratio imposed by the central bank is 5 percent. If foreign exchange reserves of the country decline by 400 MUC, money supply would

- (a) Decline by 1,440 MUC
- (b) Increase by 1,440 MUC
- (c) Decline by 820 MUC
- (d) Increase by 1,920 MUC
- (e) Decline by 1,920 MUC.

(2 marks)

[<Answer>](#)

56. In a hypothetical economy, the nominal income increased by 10%. If the prices increased by 3%, the real income increases by

- (a) 3%
- (b) 5%
- (c) 7%
- (d) 10%
- (e) 13%.

(1 mark)

[<Answer>](#)

57. The national income statistics is useful

- I. As an instrument of economic planning and review.
- II. As a means of indicating changes in a country's standard of living.
- III. To indicate changes in the economic growth of a country.

- (a) Only (I) above
- (b) Only (II) above
- (c) Both (I) and (III) above
- (d) Both (II) and (III) above
- (e) All (I), (II) and (III) above.

(1 mark)

[<Answer>](#)

58. In an economy the marginal propensity to consume is 0.30 and marginal propensity to import is 10%. Assuming that the investment is autonomous and increases by 580 MUC during the year, the income in the economy increases by

- (a) 500 MUC
- (b) 580 MUC
- (c) 725 MUC
- (d) 1,000 MUC

(e) 1,500 MUC.

(1 mark)

[<Answer>](#)

59. Consider the following information:

Particulars	Rs. Crores
Income from Employment	1,50,000
Income from self-employment	90,000
Gross trading profit of companies	2,70,000
Gross trading surplus of public companies	2,10,000
Rental Income	90,000
Net Factor income from abroad	2,10,000

The GNP at factor cost as per the income method is

- (a) Rs. 2,40,000 crores
- (b) Rs. 4,20,000 crores
- (c) Rs. 4,05,000 crores
- (d) Rs. 9,60,000 crores
- (e) Rs.10,20,000 crores.

(1 mark)

[<Answer>](#)

60. Which of the following is/are stock variable(s)?

- I. Money supply.
- II. Consumer price index.
- III. Foreign exchange reserves.

- (a) Only (I) above
- (b) Only (II) above
- (c) Both (I) and (II) above
- (d) Both (I) and (III) above
- (e) All (I), (II) and (III) above.

(1 mark)

[<Answer>](#)

61. The following data is taken from National Income Accounts of a country:

Particulars	MUC
National income	61,065
Transfer payments	10,890
Personal taxes	9,135
Undistributed corporate profits	1,260
Corporate tax	3,375

Personal disposable income in the country is

- (a) 61,335 MUC
- (b) 58,185 MUC
- (c) 50,445 MUC
- (d) 55,350 MUC
- (e) 67,365 MUC.

(1 mark)

[<Answer>](#)

62. A contractionary monetary policy will

- (a) Shift the aggregate demand curve to the left
- (b) Shift the aggregate demand curve to the right
- (c) Shift the aggregate supply curve to the left
- (d) Shift the aggregate supply curve to the right
- (e) Keep the aggregate demand curve constant.

(1 mark)

[<Answer>](#)

63. Gross Domestic Product is the market value of

- (a) All good and services exchanged in an economy during all the time period
- (b) All good and services exchanged in an economy during a one-year period
- (c) All final goods and services exchanged in an economy during a one-year period
- (d) All transactions in an economy during a one-year period
- (e) All final goods and services produced in an economy during a one-year period.

(1 mark)

[<Answer>](#)

64. International trade and specialization are decided by

- (a) Production possibility frontier
- (b) Absolute costs
- (c) Absolute advantage
- (d) Comparative advantage
- (e) Sunk cost.

(1 mark)

[<Answer>](#)

65. The Central bank's monetary liabilities as on March 31, 2007 stood at 12,500 MUC and Government money at 2,500 MUC. The currency deposit ratio is estimated to be 0.20. If the Central bank intends to maintain the money supply at 75,000 MUC, what should be the reserve ratio specified by the Central bank?

- (a) 2.0%
- (b) 4.0%
- (c) 5.0%
- (d) 7.0%
- (e) 10.0%.

(1 mark)

[<Answer>](#)

66. The following information is given for an economy

Finance ratio : 0.20

Intermediation ratio : 0.80

If the National Income of the economy is 80,000 MUC, total issues will be

- (a) 16,000 MUC
- (b) 24,000 MUC
- (c) 144,000 MUC
- (d) 80,000 MUC
- (e) 64,000 MUC.

(1 mark)

[<Answer>](#)

67. Monetary policy will be effective only when

- (a) Money supply reacts to changes in the interest rate
- (b) Money demand reacts to changes in the interest rate
- (c) Planned investment reacts to the changes in the interest rate
- (d) Net exports react to the changes in the interest rate
- (e) Planned investment reacts to the changes in the exchange rate of home country's currency.

(1 mark)

[<Answer>](#)

68. The following data pertains to a hypothetical economy:

Particulars	MUC
Private final consumption expenditure	3,750
Fixed capital formation	1,125
Increase in inventories	250
Government final consumption expenditure	800
Exports	200
Imports	125
Money supply	1,000

The velocity of money in the economy is

- (a) 2
- (b) 3
- (c) 4
- (d) 5
- (e) 6.

(2 marks)

[<Answer>](#)

69. Marginal propensity to save for an open economy is 0.2 and the marginal propensity to import is 0.20. If the autonomous investment increases by 500 MUC, its effect on the level of imports will be

- (a) Increase in imports by 143.0 MUC
- (b) Decrease in imports by 143.0 MUC
- (c) Decrease in imports by 250.0 MUC
- (d) Increase in imports by 250.0 MUC
- (e) No change in the level of imports.

(2 marks)

[<Answer>](#)

70. According expenditure method Gross Domestic Product is expressed as

- (a) Wages + interest + rent + profits - net factor income from abroad + capital consumption allowance + indirect business taxes
- (b) The sum of the values added at each stage of production
- (c) Consumption + Investment+ Government expenditure + Net exports
- (d) NI + indirect business taxes
- (e) NI + indirect personal taxes.

(1 mark)

[<Answer>](#)

71. Which of the following could be a cause of demand-pull inflation?

- (a) Suppliers who increase their profit margins by raising prices faster than their costs increase
- (b) Drought in Maharastra, which can cause crop failures
- (c) War in the Iraq, which can increase oil prices
- (d) A bumper cotton production which reduces the prices of textiles
- (e) Increased government spending in the absence of increased taxes.

(1 mark)

[<Answer>](#)

72. The following information is extracted from the National Income Accounts of an economy.

Particulars	MUC
Factor income received by domestic residents from business sector	7,000
Factor income received by domestic residents from foreigners	280
Gross investment	2,800
Retained earnings	350
Net indirect taxes	840
Corporate profit taxes	210
Personal income taxes	1,400
Net factor income from abroad	-70
Dividends	1,400

National Income (NI) of the economy is

- (a) 8,680 MUC
- (b) 8,960 MUC
- (c) 7,840 MUC
- (d) 10,080 MUC
- (e) 11,340 MUC.

(2 marks)

[<Answer>](#)

73. The following information is extracted from the National Income Accounts of a country:

Particulars	MUC
NDP at market prices	80,000

NNP at factor cost	67,200
Gross domestic investment	12,800
Corporate profits (profit before tax)	12,000
Subsidies	1,600
Net domestic investment	10,400
Corporate profit tax	5,600
Personal tax payments	5,600
Indirect taxes	15,200
Factor income paid abroad	2,000

What is the factor income received from abroad?

- (a) 1,600 MUC
- (b) -1,200 MUC
- (c) 1,200 MUC
- (d) -2,800 MUC
- (e) 2,800 MUC.

(2 marks)

[<Answer>](#)

74. In an economy, the high-powered money and money supply are 4,500 MUC and 22,500 MUC respectively. If the reserve ratio is 10%, currency deposit ratio for the economy is

- (a) 0.125
- (b) 0.200
- (c) 0.250
- (d) 0.500
- (e) 1.000.

(1 mark)

END OF QUESTION PAPER

Suggested Answers Economics (CFA520): April 2008

ANSWER

REASON

1. D
Option (d) states that as the population increases the demand decreases but in fact an increase in population will increase the market size which in turn increases the demand. For example if population of a city increases the demand for housing will increase in that city.
2. B
The demand function of the firm is given as

$$P = 500 - 8Q$$

$$TR = P \times Q$$

$$= (500 - 8Q)Q$$

$$= 500Q - 8Q^2$$

$$\therefore MR = 500 - 16Q$$
A firm maximizes its profits when $MR = MC$
So $500 - 16Q = 9Q$
Or $25Q = 500$
 $Q = 20$
 $\therefore \text{Price} = 500 - 8(20)$

[< TOP](#)

[≥](#)

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[≥](#)

- [< TOP](#)
[≥](#)
3. E $= 500 - 160 = \text{Rs.}340.$
Price elasticity of demand (e_p) =
 $P = 8 - Q$
 $Q = 8 - P$
Given $P = \text{Rs. } 6$
So $Q = 8 - 6 = 2$
 $= -1$
 $(e_p) =$
 $(e_p) =$
 $=$
4. C $MR = AR (1 - 1/e_p)$
Here $AR = \text{Rs.}80$ (because $AR = \text{price per unit}$).
 $e_p = 4$
 $\therefore MR = 80 (1 - \frac{1}{4})$
 $= 80 (3/4)$
 $= \text{Rs.}60.$
5. C The price elasticity of supply (E_s) =
6. A The demand function : $Q_d = 6,50,000 - 45P$
When price is Rs. 5,000 per unit
 $Q_1 = 6,50,000 - 45 (5,000)$
 $= 6,50,000 - 2,25,000$
 $= 4,25,000$
When price is Rs. 6,000 per unit
 $Q_2 = 6,50,000 - 45 (6,000)$
 $= 6,50,000 - 2,70,000$
 $= 3,80,000$
Arc price elasticity of demand is
 $E_p =$
 $= -0.615.$
7. E (a) is true. Utility is defined as the extent of satisfaction obtained from the consumption of goods and services.
(b) is true. There exists a difference between choice and preference. Preference pertains to the likes and dislikes of the consumers, where as a consumer makes choice between the available alternatives which suits best to his budget.
(c) is true. The concept of utility is developed to explain the basic principles of consumer choice and behaviour. The consumer make choice of a particular good or a bundle of goods based on the utility that he can derive out of it.
(d) is true. A rational consumer is one who allocates his spending in such a way that the preferred combination gives him the maximum satisfaction
(e) is not true. According to ordinalist approach utility cannot be measured but can only be ranked in order of preference.
8. D When marginal utility is zero the total utility will be maximum and the slope of total utility curve will be zero at this point. Beyond this point the total utility starts declining. Hence at the quantity of good where marginal utility is zero the
- [< TOP](#)
[≥](#)

- quantity is called as satiation quantity.
9. E The reason why a consumer pay zero or a very low amount of money for certain items with high benefits is explained by the value paradox. [< TOP](#)
≥
10. E In case of perfect substitutes the shape of indifference curve will be a downward sloping straight line. [< TOP](#)
≥
In case of perfect complements the shape of indifference curve will be L – shaped.
11. D $MU_A/P_A = MU_B/P_B$ [< TOP](#)
≥
That gives $250/50 = MU_B/70$ or $MU_B = 350$ utils.
12. B Total utility = $U = 40XY$ [< TOP](#)
≥
 $MU_X = U/X = 40Y$
 $MU_Y = U/Y = 40X$
At equilibrium, $MU_X/P_X = MU_Y/P_Y$
 $40Y/2 = 40X/4$
Or, $20Y = 10X$
Or, $2Y = X$
Thus, if $X = 40$, $Y = X/2 = 40/2 = 20$ units.
Hence the correct answer is (b).
13. C The consumer would consume the good up to a point where $MU = P$. [< TOP](#)
≥
 $TU = 20X^{1.5}$
 $MU = 30X^{0.5} = 90$
 $X^{0.5} = 3$
Or, $X = 9$ units.
14. B Marginal productivity of labor is addition made to total product by employing one more unit of labor. In the given case [< TOP](#)
≥
Marginal product of 3rd unit of labour = $210 - 160 = 50$
15. B Option (b) is false because the average product will be greater than marginal product only after the point when both of them are equal. Before this point the marginal product will greater than average product. [< TOP](#)
≥
16. D An isocost line is a straight line sloping downward from left to right. [< TOP](#)
≥
17. C $TP_L = 30L - 1.5L^2$ [< TOP](#)
≥
 $MP_L = 30 - 3L$
Marginal returns become negative, once MP_L equals zero. Thus,
 $30 - 3L = 0$
Or, $L = 10$.
18. B $AP_L = 60L - L^2$ [< TOP](#)
≥
 $TP_L = AP_L \times L = 60L^2 - L^3$
 TP_L can be maximized when $MP_L = 0$
Therefore, $\partial TP_L / \partial L = 120L - 3L^2 = 0$
 $L(120 - 3L) = 0$
 $L = 0$ or $L = 40$.

∴ Output can be maximized by employing 40 labors.

∴ Maximum possible $TP_L = 60(40)^2 - (40)^3 = 96,000 - 64,000 = 32,000$ units.

- | | | | |
|-----|---|--|---|
| 19. | B | An isoquant is represents the combinations of inputs that can produce same level of output. So the correct answer is (b). | < TOP
≥ |
| 20. | E | A firm will break even when $TR = TC$. In the given diagram there are two such points (Q1 and Q3) where $TR = TC$. | < TOP
≥ |
| 21. | C | It is Marginal Rate of Technical Substitution (MRTS) which is expressed through an isoquant. Whereas Marginal Rate of Substitution (MRS) is expressed through an indifference curve. | < TOP
≥ |
| 22. | D | <p>First stage of production function ends when AP_L is highest and second stage ends when $MP_L = 0$. AP_L is highest when $AP_L = MP_L$.</p> <p>$Q = 12L^2 - L^3$</p> <p>$AP_L = Q/L = 12L - L^2$</p> <p>$MP_L = \partial Q / \partial L = 24L - 3L^2$</p> <p>By equating AP_L and MP_L,</p> <p>$12L - L^2 = 24L - 3L^2$</p> <p>$2L^2 = 12L$</p> <p>Or, $L = 6$</p> <p>Thus, first stage of production is over the range of labor input 0 to 6.</p> <p>At the end of the second stage of production function,</p> <p>$MP_L = 0$</p> <p>$24L - 3L^2 = 0$</p> <p>Or, $L = 8$.</p> <p>Thus, the second stage of production function is over the range of labor input $6 < L < 8$.</p> <p>A rational firm would operate only in the second stage of production function. This is because of increasing AP_L in the first stage and negative MP_L in the third stage and it stops employing labor beyond 8 units.</p> | < TOP
≥ |
| 23. | A | The time cost when expressed in terms of money is referred as implicit cost. | < TOP
≥ |
| 24. | B | Fixed cost of production is fixed at any level of output. Average fixed cost is fixed cost divided by number of units produced. Hence as the output increases the average fixed cost decreases continuously. | < TOP
≥ |
| 25. | C | Inventory economies are also called as stochastic economies because the role of the inventories is to meet the random changes in the input and output sides of the operation of the firm. | < TOP
≥ |
| 26. | C | <p>$AC = TC/Q = 48 - 6Q + 2Q^2$</p> <p>AC is minimum when $AC / Q = 0$</p> <p>$= -6 + 4Q = 0$</p> <p>$4Q = 6$</p> <p>$Q = 1.5$</p> <p>At $Q = 1.5$, $AC = 48 - 6(1.5) + 2(1.5)^2 = \text{Rs. } 43.5$</p> | < TOP
≥ |
| 27. | B | <p>$MC = \partial TC / \partial Q$</p> <p>Where, $TC = TFC + TVC$</p> | < TOP
≥ |

$$TVC = AVC \times Q = (15 - 7.5Q + 0.25Q^2) Q = 15Q - 7.5Q^2 + 0.25Q^3$$

$$\text{Thus, } TC = 400 + 15Q - 7.5Q^2 + 0.25Q^3$$

$$\text{Then, } MC = \partial TC / \partial Q = 15 - 15Q + 0.75Q^2$$

MC will be minimum when $\partial MC / \partial Q = 0$

$$\partial MC / \partial Q = -15 + 1.5Q = 0$$

$$\text{Or, } 1.5Q = 15$$

$$\text{Or, } Q = 15/1.5$$

$$Q = 10 \text{ units.}$$

28. D
- In the long run, the fixed cost will be zero. In long run, all costs are variable, which means there will be no fixed costs.
 - Fixed costs remain constant, i.e. are independent to the firm's level of output.
 - The difference between average total cost and average variable costs signifies the amount of average fixed cost of a firm.
 - Marginal cost is the increment in total cost for producing one more unit of output
 - When the firm is not producing anything, its variable cost will be zero. Hence, the total cost of the firm will be just equal to its fixed costs.
29. A
- Quantity required break even (Q_x) = fixed cost / $P - AVC$
- $$= 4,97,200/650 - 85$$
- $$= 4,97,200/565 = 880$$
- $$= 880 \text{ units.}$$
- Total revenue at the toy manufacturer's break even is equal to the price of the product multiplied by break even quantity
- $$= 880 \quad 650 = \text{Rs. } 5,72,000$$
30. D
- $$TC = 500 - 2Q + 3Q^2$$
- $$AC = 500/Q - 2 + 3Q$$
- $$= 500/5 - 2 + 15$$
- $$= \text{Rs. } 113.$$
31. C
- Pecuniary economies of scales are those economies which a firm accrue due to discounts it can obtain for its large scale operations.
- Using reserve capacity is a technical economy. Hence it is not a pecuniary economy of scale.
32. A
- In a perfectly competitive market a firm is price taker hence its MR will be equal to its AR and price. Total profit = $TR - TC$
- Here $TR = 20 \times 6 = 120$
- $TC = 17.6 \times 6 = 105.6$
- Total profit of 6th unit is $= 120 - 105.6 = \text{Rs. } 14.4 \text{ thousand}$
33. B
- $$H = 2(0.25)^2 + 5(0.10)^2$$
- $$= 0.125 + 0.05 = 0.175$$
34. D
- The monopolist must decrease the price of every unit in order to sell additional units, that is why the marginal revenue curve of the monopolists slopes downwards from left to right.
35. E
- The firms after forming a cartel appoints a central agency. The central agency is delegated the authority to decide:
- Total quantity of the product to be produced.
 - Price of the product.

III. Allocation of production among the members of the cartel.
 IV. Distribution of the maximum joint profits among the members.
 Hence option (e) is the correct answer.

36. A In Price leadership by a low cost firm the follower has to follow the price at which the low cost firm is selling its output. In the given case the first firm is the low cost firm whose MC curve lies below the MC curve of the second firm. The first firm's MR is equal to its MC at point E_1 where it sells Q_1 units of output and sets a price P_1 . The second firm if it follows the leader will also charge the same price. At this point it cannot maximize its profits. If at all it decides to maximize its profit it has sell it output at price where its $MC = MR$. That is the firm will get maximum profit at point A. [< TOP](#)
[≥](#)
37. B Demand function of the firm is given as $Q = 75 - P$ [< TOP](#)
 $P = 75 - Q$ [≥](#)
 $TR = P \times Q$
 $= 75Q - Q^2$
 $MR = 75 - 2Q$
 $TC = 25Q$
 $MC = 25$
 Profit maximizing output is obtained when $MR = MC$
 $= 75 - 2Q = 25$
 $2Q = 50$
 $Q = 25$
 $P = 75 - Q$
 $= 75 - 25 = 50$
 $Profit = TR - TC$
 $TR = P \times Q$
 $= 50 \times 25 = 1250$
 $TC = 25Q$
 $= 25 \times 25 = 625$
 $\therefore \text{profit} = 1250 - 625 = \text{Rs.}625.$
38. C Due to the taxes, the consumption will decrease and the consumption function slopes downward. It shifts downward by the MPC times the increase in taxes, ceteris paribus. [< TOP](#)
[≥](#)
39. E An increase in nominal money supply, a decrease in the price level, or a purchase of bonds by the RBI increases real money stock, which shifts the LM curve to the right. [< TOP](#)
[≥](#)
40. C Personal Income = National Income – Undistributed corporate profit – corporate tax + Transfer payments [< TOP](#)
[≥](#)
 Personal Income = $5428 - 112 - 300 + 968$
 $= \text{Rs.}5984 \text{ cr}$
 Personal tax payments = Personal Income – Personal disposable income
 $= 5984 - 5172 = \text{Rs.}812 \text{ cr}.$
41. C Corporate profits = Corporate profit tax + Dividends + Retained earnings [< TOP](#)
 $= 400 + 120 + 160 = 680 \text{ MUC.}$ [≥](#)
42. A Velocity of money is the average use of money in purchasing final output. [< TOP](#)
[≥](#)
43. D $Y = C + I$ [< TOP](#)
[≥](#)

- $Y = 1400 + 0.25 Y + I$
 $0.75 \times 8000 = 1400 + I$
 $6000 - 1400 = I$
 $I = 4,600 \text{ MUC.}$
- 44.** B A decrease in the price level results in a movement along the AS curve, and an increase in the expected price level causes an upward shift in the AS curve.
- 45.** C In the long run, if the budget deficit will increase, it will raise interest rates leading to lower investment and hence lower output.
- 46.** D An increase in aggregate output causes the demand for money to increase and the interest rate to increase.
- 47.** B

$$Y = C + I + G$$

$$Y = 50 + 0.75Y_d + 50 + 30$$

$$Y = 50 + 0.75(Y - 0.1 Y) + 50 + 30$$

$$Y = 50 + 0.75 Y - 0.075 Y + 50 + 30$$

$$0.325Y = 130$$

$$Y = 400$$

$\therefore \text{Budget surplus} = \text{Tax Revenue} \text{ minus } \text{Government expenditure}$

$$T - G = 0.1(400) - 30 = 40 - 30 = 10 \text{ MUC.}$$
- 48.** D The balance on current account equals the absolute value of the balance on capital account and it includes goods, services, and unilateral transfers.
- 49.** E All the following statements i.e. inflation decreases the purchasing power of money, during inflationary periods, people are encouraged to hoard and keep large stock of goods and High inflationary situations discourage entrepreneur from taking the risks involved in investing for future production are true statements.
- 50.** C The narrow money M1 is Currency in circulation + Demand deposits with the banking system + Other deposits with the RBI.
- 51.** E
 At equilibrium, $IS = LM$
 $Y = 4800 + 0.5Y - 50i$
 $Y = 9600 - 100i$ IS function
 $Y = 4,600 + 400i$ LM function
 Thus at simultaneous equilibrium,
 $9600 - 100i = 4,600 + 400i$
 Or, $5000 = 500i$
 Or, $I = 10$
 When government spending increase by 200, the IS function becomes
 $0.5Y = (4800 + 200) - 50i$
 $0.5Y = 5000 - 50i$
 Or, $Y = 10000 - 100i$
 Thus, at equilibrium,
 $4,600 + 400i = 10000 - 100i$
 Or, $500i = 5400$
 Or, $I = 10.8$
- 52.** C Rate of growth of money stock (gM) = $a.gY + gP$
 Where, 'a' = income elasticity of demand for real balances
 'gY' = expected rate of growth in real GDP

'gP' = acceptable rate of inflation

Thus, 'gM' = $(3 \times 6) + 6 = 24\%$

Given money multiplier is 8,

Rate of growth of reserve money = $24/8 = 3.0\%$.

53. D An increase in government spending that lowers private spending is called as crowding out. [< TOP](#)
≥
54. B An IT professional who has been laid off during a recession is an example of cyclical unemployment. [< TOP](#)
≥
55. E $M_s = \text{High-powered money} \times \{(1 + C_u)/(C_u + r)\}$; where High powered money = monetary liabilities of the central bank + government money. [< TOP](#)
≥
 $\Delta M_s = \Delta H. m$
When foreign exchange reserves of the country decline by Rs.400 MUC, the monetary liabilities also fall by 400 MUC. Thus, money supply decline by $4.8 \times 400 = 1920$ MUC.
56. C Growth rate of Real income = Nominal income – price level = $10\% - 3\% = 7\%$. [< TOP](#)
≥
57. E The national income statistics is useful. As an instrument of economic planning and review, as a means of indicating changes in a country's standard of living and to indicate changes in the economic growth of a country. So, the answer is (e). [< TOP](#)
≥
58. C Multiplier = $1/(1 - MPC + MPI) = 1/(1 - 0.30 + 0.1) = 1/0.8 = 1.25$ [< TOP](#)
Thus if investment increases by 580, income increases by $580 \times 1.25 = 725$ MUC. [< TOP](#)
≥
59. E According to the Income Method [< TOP](#)
GNP at factor cost = Income from employment + Income from self-employment + Gross trading profit of companies + gross trading surplus of public corporations + Rental income + Net factor income from abroad [< TOP](#)
GNP at factor cost = $1,50,000 + 90,000 + 2,70,000 + 2,10,000 + 90,000 + 2,10,000$
= Rs 10,20,000 crores
60. E Money supply, consumer price index and foreign exchange reserves are the examples of stock variables. [< TOP](#)
≥
61. B Personal disposable income = National Income – Undistributed corporate profit – corporate tax + Transfer payments – personal taxes [< TOP](#)
∴ Personal Income = $61,065 - 1,260 - 3,375 + 10,890 - 9,135$
= 58,185 MUC. [< TOP](#)
≥
62. A A contractionary monetary policy will shift the aggregate demand curve to the left. [< TOP](#)
≥
63. E Gross domestic product is the market value of all final goods and services produced in an economy during a one-year period. [< TOP](#)
≥
64. D International trade and specialization are determined by comparative advantage. [< TOP](#)
≥
65. B High powered money = monetary liabilities + government money [< TOP](#)
= $12,500 + 2,500$
= 15,000 [< TOP](#)
 $M_s = H \times \left\{ \frac{1 + C_u}{C_u + r} \right\}$
 $75,000 = 15,000 \left\{ \frac{1 + C_u}{C_u + r} \right\}$

$$= (1 + 0.20)/(0.20 + r) = 5$$

$$= 1 + 5r = 1 + 0.20$$

$$5r = 0.20$$

$$r = 0.04 = 4\%.$$

66. A Finance ratio = Total Issues/National Income [< TOP](#)
 Given National Income = 80,000 [>](#)
 Total Issues = 80,000 x 0.20 = 16,000 MUC.
67. C Monetary policy will be effective only when planned investment reacts to the changes in the interest rate. [< TOP](#)
[>](#)
68. E Answer: (e) [< TOP](#)
 Reason: Velocity of money = Y/M_S [>](#)
 $Y = C + I + G + X - M$
 $= 3,750 + 1375 + 800 + 200 - 125 = 6000$
 $\therefore$ Velocity of money = $6000 / 1000 = 6$
 Note: Investments (I) = Fixed capital formation + Increase in Inventories.
69. D Multiplier = $1 / MPS + MPI = 1 / (0.2 + 0.20) = 1 / 0.40 = 2.50$ [< TOP](#)
[>](#)
 When autonomous investment increases by 500, income will increase by $500 \times 2.50 = 1250$
 The increase in imports will be $0.20 \times 1250 = 250$ MUC
70. C Gross Domestic Product as expenditures can be described as Consumption + Investment + Government expenditure + Net exports. [< TOP](#)
[>](#)
71. E When there is an increased government spending in the absence of increased taxes, it will result in an increase in aggregate demand in the economy. Hence it leads to demand-pull inflation. [< TOP](#)
[>](#)
72. C National income (NI) = Factor income received by domestic residents + Factor income received by domestic residents from foreigners + corporate profit taxes + retained earnings = $7000 + 280 + 210 + 350 = 7,840$ MUC. [< TOP](#)
[>](#)
73. E NFIA = $NNP_{MP} - NDP_{MP}$ [< TOP](#)
[>](#)
 $NNP_{MP} = NNP_{FC} + \text{Indirect Taxes} - \text{Subsidies} = 67,200 + 15,200 - 1,600 = 80,800$
 Thus, NFIA = $80800 - 80000 = 800$ MUC.
 Factor income received from abroad = Factor income paid abroad + net factor income earned abroad
 $= 2000 + 800 = 2,800$ MUC.
74. A Money supply = High Powered money $\times$ Money multiplier [< TOP](#)
[>](#)
 $\therefore 22500 = 4,500m$
 or, $m =$
 $\therefore$
 or, $1 + C_u = 5C_u + 0.50$
 or, $4C_u = 0.50$
 or, $C_u = 0.125$

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