

## MICROECONOMICS-I(CC-V)

### GROUP-A

Objective question

[1 mark]

- \_\_\_\_\_ will be the shape of PPC curve when marginal opportunity cost is constant.
- The Logical extension of Cournot model is \_\_\_\_\_.
- An exogenous variable exist \_\_\_\_\_ the economic model.
- Technical progress is said to be Hisk capital intensive if at constant capital labour ratio  $MRTS_{lk}$  is \_\_\_\_\_.
- \_\_\_\_\_ Production function will exhibit both Hisk and Harrods technical progress.
- Price of a product falls by 10% and its demand rises by 30%. The elasticity of demand is \_\_\_\_\_.
- Even average fixed cost continuous to fall, the AVC begins to rise because of \_\_\_\_\_.
- When income effect is stronger than substitution effect, then labour supply curve is \_\_\_\_\_.
- Various amounts of good which a consumer would be willing to purchase at various income level is denotes as \_\_\_\_\_.
- A producer is said to be operating is with \_\_\_\_\_ when he produces an output smaller than that given by the minimum ATC.
- If  $MP_l/PM_k$  does not change with any proportionate change in labour and capital then production function is \_\_\_\_\_.
- For substitute good cross elasticity of demand is \_\_\_\_\_.
- For downward moment along the isoquant, MRTS of labour per unit of capital ( $MRTS_{lk}$ ) is given by \_\_\_\_\_.
- The Marginal revenue of a monopoly firm is less than price because \_\_\_\_\_.
- For an inferior good, income consumption and Engle curves are \_\_\_\_\_.
- Comparative advantage is based on \_\_\_\_\_.
- Calculate the average Fixed cost for a level of production  $Q=20$ , knowing that the total cost function is:  $TC=200+3q+2q^2$
- The points located at the intersection of the budget line with the coordinate axes mean:\_\_\_\_\_.
- If the price consumption curve of a commodity is bending backward, then the commodity must be \_\_\_\_\_.

20. A profit maximizing firm will stop production in the short run if price is \_\_\_\_\_.

Ans:(1)straight line,(2) Stackelberg duopoly model,(3) outside, (4) constant, (5) homogeneous production function,(6) 3,(7) increase in variable cost,(8) Bends backward, (9)Engle Curve,(10) Excess capacity, (11) Homothetic, (12) Positive, (13)  $-dk/dl$ ,(14) price discrimination power, (15) Negative,(16) Opportunity cost(17)10(18) the consumer spends all his income for only one good(19)inferior(20)less than AVC

#### GROUP-B

Short question

[2 marks]

1. What is homothetic production function?
2. What are reasons for diminishing marginal rate of technical substitution?
3. Define Bayes' rule.
4. What is transitivity axiom?
5. What is constraint optimization?
6. Difference between primal and dual problem.
7. How do you derive indirect utility function?
8. What is elasticity of substitution?
9. When would you apply Boarder Hessian determinant.
- 10.What is continuity?
- 11.What is income effect?
- 12.What do you consumer surplus?
- 13.What is diminishing marginal rate of substitution?
14. Find the MRS of the function  $U(x, y) = x + \ln y$  and conform that the function is quasi concave.
15. What is elasticity of substitution?
- 16.What is technical progress?
- 17.What is expenditure minimization?
- 18.Write down properties of expenditure minimization.
19. What is Slutsky equation?
- 20.What is composite commodity?

#### GROUP-C

Short question

[3 marks]

1. What are axioms of rationality?

2. Difference between partial equilibrium and general equilibrium analysis.
3. What is the difference between compensated and uncompensated demand curve?
4. What are conditions an inferior good to be called Giffen good?
5. With n goods, the individuals objective is maximize utility from these n goods.  
Utility =  $U(x_1, x_2, \dots, x_n)$  subject to budget constraint  $I = p_1x_1 + p_2x_2 + \dots + p_nx_n$
6. Shows that the MRS for the Cobb Douglas function  $U(x,y) = x^\alpha y^\beta$  is given by  $MRS = \alpha/\beta(y/x)$ .
7. Why the indifference curve is convex to the origin?
8. What is CES production function?
9. What is Shephard's Lemma?
10. Given production function is  $Q = 2\sqrt{kl}$ .  
In the short run the firms amount of capital equipment is fixed at  $k=100$ . The rental rate for k is  $v=Rs. 1$ , and the wage rate for l is  $w=Rs. 4$ . Calculate the firm's short total cost curve and short run average cost curve.
11. What are the properties of Cobb Douglas production function?

#### GROUP-D

Long question

[7 marks]

1. Consider the production function represented  $Y = AL^\alpha K^\beta$ , where Y is output and  $\alpha$  and  $\beta$  are positive constants.
  - (a) Show that this production function exhibits constant returns to scale when  $\alpha + \beta = 1$ .
  - (b) Show that marginal product of labour depends on the input ratio  $K/L$  only.
  - (c) When is the expansion path linear?
  - (d) Define the range of values of  $\alpha$  for which this function depicts diminishing MP of labour.
2. What is an expansion path? Show that expansion path of a linear homogeneous production function is a straight to the origin.
3. A firm producing hockey stick production function is given by  $Q = 2\sqrt{KL}$ . In the short run, the firms' amount of capital equipment is fixed at  $K=100$ . The rental rate for k is  $Rs.1$  and the wage rate is  $Rs.4$ .
  - (a) Calculate the firms short run total and average costs.
  - (b) What are STC, SAC and SMC for producing 25 sticks?
4. An individual's marginal utilities for commodities are given by  $MU_x = 40 - 5x$  and  $MU_y = 20 - 3y$ . What is his marginal rate of substitution in consumption at the consumption basket  $X=3$ ,  $Y=5$ ? If  $P_x = 5/$  and  $P_y = 1/$ , is the basket a consumption equilibrium?



## MACROECONOMICS (CC-VI)

### Group - A

Fill in the blanks

1. The psychological law of consumption is propounded by .....
2. Disposable income is the difference between income and.....
3. Absolute Income Hypothesis shows consumption expenditure as a function of .....level of income.
4. Inability of the households to reduce consumption standard enjoyed at the peak income level is called..... effect.
5. In case of straight line consumption curve, APC is.....than MPC.
6. Investment in physical capital stock is known as ..... Investment.
7. The ratio between the prospective yield and supply price of a capital asset is known as .....
8. Planned investment is otherwise known as ..... Investment.
9. The concept of investment multiplier was developed by .....
10. Multiplier is the reciprocal of.....
11. Saving acts as a.....to multiplier.
12. .... Developed the concept of employment multiplier.
13. Classical economist emphasized.....function of money.
14. Situation in which interest rate cannot fall any further is better known as .....
15. High powered money is the sum of currency held by the public and .....
16. M<sub>1</sub> consists of currency with the public, demand deposits with commercial banks and.....
17. Intersection between IS and..... function show general equilibrium.
18. If money supply increases, the LM curve shifts to .....
19. If aggregate expenditure increases, the IS curve shifts to.....
20. Inflation causes .....in value of money.
21. Inflation redistributes income in favour of .....

22. Inflation according to J M Keynes is a .....situation.
23. .... finds an inverse relationship between rate of unemployment and rate of increase in money wage.
24. There are..... phases of trade cycles.
25. J A Schumpeter links trade cycles with..... .
26. .... is a situation characterized by high inflation and high unemployment rate?

### Answers

1. Keynes 2.Direct tax 3.Absolute 4.Ratchet 5.Greater 6.Real7.MEC 8.Voluntary 9. J M Keynes 10. MPS 11. Leakage 12.Medium of Exchange 13. R F Khan 14. Liquidity Trap 15. Commercial Bank Reserve 16. Other deposits with RBI 17. LM 18. Right, 19. Right,20. Fall, 21. Rise, 22. Post full employment, 23. A W Phillips, 24. Four, 25. Innovation 26. Stagflation.

### Group – B

Answer in one sentence each.

1. What happens to APC when income rises?
2. What is ratchet effect?
3. What is demonstration effect?
4. What is induced investment?
5. Who developed the concept of investment multiplier?
6. Who developed the Acceleration principle?
7. What is capital output ratio?
8. What is barter system?
9. What is CRR?
10. What is SLR?
11. What is high powered money?
12. What is liquidity preference?
13. What is disguised unemployment?
14. What is open unemployment?

15. What is prosperity?

### Answers

1. Falls
2. Inability of the households to reduce consumption standards enjoyed at the peak level of income.
3. Effect of imitating one's rich neighbours
4. Investment affected by income or profit.
5. J M Keynes
6. T N Carver
7. Ratio of investment to output
8. Direct exchange of goods for goods
9. Proportion of commercial bank deposits maintained with the central bank.
10. Percentage of total current and time deposit liabilities maintained with the central bank in the form of cash or securities
11. Sum of commercial bank reserve and currency held by the public
12. Demand to hold money
13. A situation in which excess people works in a sector having Zero Marginal Productivity
14. Unemployment of educated youth
15. Situation in which economic activities remains at the highest level.

## Group – C

### Short answer type questions

1. What is consumption function?
2. What is APC?
3. What is absolute income?
4. What is transitory income?
5. What is financial investment?
6. What is net investment?
7. What is investment multiplier?
8. What are the leakages to multiplier?
9. What is dynamic multiplier?
10. What is capital output ratio?

11. What is super multiplier?
12. What is liquidity trap?
13. What is speculative demand for money?
14. What is Friedman's view on money supply?
15. What is under employment equilibrium?
16. What are the components of aggregate demand?
17. What is structural unemployment?
18. What are the phases of trade cycles?
19. Hayek's view on trade cycles?
20. Views of J A Schumpeter on trade cycles?

## Group - D

Long answer type questions

1. Explain Keynes's Psychological Law of consumption and its implications?
2. "Keynes's consumption function is an epoch making tool in economic analysis." Discuss.
3. Explain the absolute income hypothesis?
4. Critically examine the Relative income hypothesis?
5. Critically examine the Life Cycle Hypothesis?
6. Distinguish between marginal efficiency of capital and marginal efficiency of capital?
7. Distinguish between autonomous and induced investment?
8. Examine the relevance of multiplier in the LDCs?
9. Discuss the concept of investment multiplier and examine its role in raising income and output?
10. Critically examine the Acceleration principle?
11. What is liquidity Trap and what are its implications?
12. Explain the various components of money supply in India?
13. Discuss the various measures of money supply adopted by the Reserve Bank of India?
14. What is aggregate demand? How is aggregate demand curve derived in the IS-LM frame work?



15. Examine the trade-off between unemployment and inflation through Phillips curve ?

## STATISTICAL METHODS FOR ECONOMICS (CC-VII)

### GROUP-A

Fill in the blanks.

[1 mark]

1. \_\_\_\_\_ is a suitable method of collecting data in cases where the informants are literate and fear the spread over the vast area.
2. The \_\_\_\_\_ data should be used the careful scrutiny.
3. Data is originally collected for any investigation is called \_\_\_\_\_.
4. \_\_\_\_\_ is a measure of variation.
5. Coefficient of variation is \_\_\_\_\_.
6. Standard deviation is measured from \_\_\_\_\_ only.
7. Value of coefficient of correlation is always lies between \_\_\_\_\_.
8. When sampling is done without replacement then Standard error of mean is \_\_\_\_\_.
9. For a moderately skewed distribution the value of mode is 10 and the value of median 20, and then the mean is \_\_\_\_\_.
10. A box contains 10 bulbs, 4 of which are defective. If 3 of the bulbs are drawn randomly without replacement then what is the probability that at least 2 of the 4 are defective?
11. If in a distribution mean is 40, mode is 60 and standard deviation is 10, then the coefficient of skewness will be \_\_\_\_\_.
12. For samples of size greater than 30, the sampling distribution of the rank correlation coefficient is approximately \_\_\_\_\_ distribution.
13. \_\_\_\_\_ index is the good measure of index number.
14. \_\_\_\_\_ satisfies time reversal test but not factor reversal test.
15. For testing the association of attributes \_\_\_\_\_ test is suitable.

16. In a regression with 3 independent variables and 20 observations F value calculated is to be tested. What will be the degrees of freedom for numerator and denominator in testing procedures?
17. Coefficient of correlation is independent \_\_\_\_\_.
18. The standard deviation of sampling method is called \_\_\_\_\_.
19. If the probability of solving a statistical problem by A is  $\frac{1}{4}$  and B is  $\frac{1}{3}$ . When a problem is given to them, probability that problem will be solved is \_\_\_\_\_.
20. The sum of the deviation of arithmetic mean is \_\_\_\_\_.
21. The sum of the squared of deviation from mean is \_\_\_\_\_.
22. \_\_\_\_\_ is the statistics is unaffected by outlier.

Ans:(1)Interview by investigator,(2)Secondary data,(3) Primary data,(4) Range,(5) S D/Mean $\times 100$ ,(6) Mean,(7) -1 to +1,(8)  $\sigma/\sqrt{n(N-1/N-n)^{1/2}}$ ,(9) 25, (10)  $\frac{1}{3}$ (11) 25,(12) Normal,(13) CPI,(14) Marshall-Edegworth,(15)Chi-square,(16)  $\frac{2}{17}$ ,(17) Origin and scale, (18) Standard error,(19)  $\frac{1}{12}$ ,(20) 0,(21) minimum,(22) Inter quartile range.

#### GROUP-B

Very short answer questions

[2 mark]

1. Discuss various types of correlation.
2. What is the difference between correlation and regression?
3. A series of index numbers is given as follows.

Year	2014	2015	2016
Index number	100	120	126

If the base year is shifted to 2015, the value of index number in the year 2016, in the new series will be:

4. If a sample survey of the same 100 household is conducted in a particular village, annually for 5 years, the data so collected will be described as:
5. What do you mean by time series?

6. State multiplicative and additive models of time series.
7. What is the coefficient of variation?
8. In a slightly skew distribution the arithmetic mean is 45 and median is 48. Find the approximate value of mode.
9. If the First Quartile is 48 and Quartile Deviation is 6, find the Median.
10. In a binomial distribution, the sum of mean and variance is 15 and the product of mean and variance is 54. Calculate the number of observation.
11. For a distribution, the first four moments about zero are 2,5,16 and 30. Is the data consistent?
12. What is Pearson product moment correlation coefficient?

#### GROUP-C

Short answer questions

[3 marks]

1. Explain the addition rule of probability rule with example.
2. What is conditional probability?
3. Explain quantity index number with example.
4. What is rank correlation coefficient?
5. Difference between sample and population.
6. Distinguish between census method and sample method.
7. For the following two series data is given which is more consistent.

Series	Mean	SD
A	40	5
B	50	4

8. Coefficient of variation of a distribution is 60% and SD is 12, Calculate mean ( $\mu$ ).
9. Compute coefficient of mean deviation from mean, median and mode.

21	24	11	7	9	39	28	48	46	41	39
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10. Distinguish between biased error and unbiased errors.

GROUP-D

Long answer questions.

[7 marks]

1. Define the principle of least square method of time series and its application.
2. What is time series analysis? Describe the variation in time series.
3. Examine the calculation of index number by simple average of price relative method.
4. Define statistics. Describe the functions of statistics.