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ANANDALAYA ANNUAL EXAMINATION Class : XI

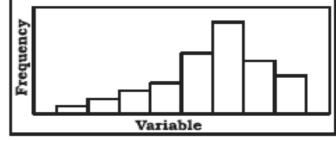
M.M:80 Time:3 hours

General Instructions: 1. This question paper contains two sections: Section A – Statistics Section B – Micro Economics 2. This paper contains 20 Multiple Choice Questions of 1 mark each. 3. This paper contains 4 Short Answer type questions of 3 marks each to be answered in 60 to 80 words. 4. This paper contains 6 Short Answer type questions of 4 marks each to be answered in 80 to 100 words. 5. This paper contains 4 Long Answer type questions of 6 marks each to be answered in 100 to 150 words. **SECTION A – STATISTICS** 1. In a good questionnaire, the questions should _____ (1)(B) move from general to specific (A) be precise and clear (D) both A and B (C) be ambigious The amount of non-responses are maximum in _____ 2. (1)(B) telephone interviews (A) mailing questionnaire (C) personal interviews (D) both B and C The frequency distribution of two variables is known as _____ 3 (1)(A) univariate frequency distribution (B) bivariate frequency distribution (C) multivariate frequency distribution (D) frequency array Median of a distribution can be obtained by _____ (1)4. (A) histogram (B) bar diagram (C) ogives (D) frequency polygon 5. Which of the following statements is incorrect? (1)(A) Scarcity is the root of all economic problems. (B) A doctor treating his daughter is an economic activity. (C) Statistics helps in facilitating planning and policy formulation (D) Attending a birthday party of your friend is a non-economic activity. The following diagram depicts _____ _____ correlation between x and y. (1)6. (A) Perfect positive (B) Perfect negative (C) Positive (D) No 7. Index number for the base year is always taken as _____ (1)(A) 100 (B) 50 (C) 1000 (D) 200

8.	Coefficient of correlation always lies between _		(1)
	(A) 0 and +1	(B) -1 and +1	
	(C) -1 and 0	(D) 1 and 10	

- 9. ______ is the middle value, when the data is arranged in ascending order. (1)
 - (A) Mean(C) Quartile

- (B) Median(D) Mode
- 10. The following is a histogram constructed from the frequency distribution of a variable. What is (1) such data be called?



(A) Unimodal data

(C) Multi-modal data

(B) Bi-modal data(D) Tri-modal data

11. From the following data relating to monthly income (in ` '000) of selected 40 families, prepare (3) a frequency distribution taking first class as 10 - 15.

10	17	15	22	11	16	19	24	29	18
25	26	32	14	17	20	23	27	30	12
15	18	24	36	18	15	21	28	33	38
34	13	10	16	20	22	29	29	23	31

- 12. Define the following terms:
 - (a) Random Sampling
 - (b) Non-Random Sampling
 - (c) Primary Data
- 13. Construct price index number for 2022 taking 2011 as the base year from the following data by (4) simple average of price relatives method.

Commodities	А	В	С	D
Prices (2011) (`)	2	5	4	2
Prices (2022) (`)	4	6	5	3

14. Draw a histogram from the following data relating to the marks obtained in Statistics by 30 (4) students of class XI.

Marks	0-10	10-20	20-30	30-40	40-50	50-60
Number of students	3	4	8	10	3	2

- 15. Briefly explain the types of correlation with appropriate examples.
- 16. (a)Calculate median from the following data.

X	14	12	10	13	11
f	3	18	3	12	12

(2)

(4)

(3)

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Number of students	5	12	15	25	8	3	2

17. From the following data, compute index numbers for 2020 with 2015 as the base year using: (6)(a) Laspeyre's Method

(b) Paasche's Method

Commodity	20	015	2020		
Commodity	Price (`)	Quantity (units)	Price (`)	Quantity (units)	
А	2	8	4	6	
В	5	10	6	5	
С	4	14	5	10	
D	2	19	2	13	

OR

Calculate Karl Pearson's coefficient of correlation from the following data

Marks in Economics	4	6	8	10	12
Marks in English	6	8	10	12	14

SECTION B – MICRO ECONOMICS

(1)

(1)

(1)

- 18. Which of the following is an example of Positive Economics?
 - (A) India should take steps to control rising prices.
 - (B) There are inequalities of income in our economy.
 - (C) India should not be an overpopulated country.
 - (D) Income inequalities should be reduced.
- 19. Read the following statements carefully.
 - Statement 1:Bundles which cost more than consumer's money income lie outside the budget line.

Statement 2:Budget line is a downward sloping line.

In the light of the given statements, choose the correct alternative:

- (A) Statement 1 is true and statement 2 is false
- (B) Statement 1 is false and statement 2 is true
- (C) Both statements 1 and 2 are true
- (D) Both statements 1 and 2 are false

20. Which one of these is not an example of substitute goods?

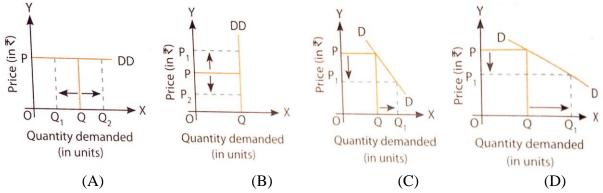
(A) Tea and coffee(B) Coke and Pepsi(C) Ink pen and ball pen(D) Bread and butter

21. When marginal product is zero, total product is _____. (1) (A) increasing (B) maximum (C) falling (D) zero OR

The cost curve which is inversely S-shaped is _____

(A) Average cost curve(B) Total fixed cost curve(C) Total variable cost curve(D) Marginal cost curve

22. Which of the following diagram correctly depicts the situation of perfectly inelastic demand? (1)



23. Read the following statement -Assertion and Reason. Choose one of the correct alternatives (1) given below:

Assertion: Expansion in demand leads to an upward movement along the same demand curve.

- **Reason:** Upward movement along the same demand curve occurs due to an increase in price of the given commodity.
- (A) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (B) Both Assertion and Reason are true and Reason is not the correct explanation of Assertion.
- (C) Assertion is true but Reason is false.
- (D) Assertion is false but Reason is true.

24.	24. When price remains same with rise in output, AR curve is			
	(A) vertical straight line parallel to Y-axis.	(B) horizontal straight line parallel to X-axis		
	(C) downward sloping	(D) upward sloping		

(1)

25. Read the following statements carefully.

Statement 1: Price elasticity of supply is more than one in case of less elastic supply.

Statement 2: When percentage change in quantity supplied is more than percentage change in price, then supply for such a commodity is said to be highly elastic.

- In the light of the given statements, choose the correct alternative:
- (A) Statement 1 is true and statement 2 is false
- (B) Statement 1 is false and statement 2 is true
- (C) Both statements 1 and 2 are true

(D) Both statements 1 and 2 are false

26.	Which one of the following is the result of increase in price of factors of production?		(1)
	(A) Rightward shift in supply curve	(B) Leftward shift in supply curve	
	(C) Expansion in supply	(D) Contraction in supply	

- 27. A rational producer always aims to operate in ______ of Law of Variable (1) Proportions.
 (A) 1st phase (Increasing returns to a factor) (B) 2nd phase (Diminishing returns to a factor)
 - (C) 3^{rd} phase (Negative returns to a factor) (D) 4^{th} phase (Constant returns to a factor)
- 28. (a) Assuming that no resource is equally efficient in production of all goods, name the curve (1.5) which shows production potential of the economy. State its properties.
 (b) Define opportunity cost? Explain its concept with the help of an example. (1.5)
- 29. Explain the law of diminishing marginal utility with the help of utility schedule and diagram. (3) OR

A consumer buys 200 units of a good at a price of Rs. 5 per unit. With change in price, he buys only 100 units. If price elasticity of demand is -1, find out the changed price.

30. Complete the following table.

Output (Units)	Total Cost (`)	Total Variable Cost (`)	Average Variable Cost (`)
0	200	0	0
1			100
2		180	
3			80
4	490		

- 31. Briefly discuss the likely impact of increase in the income of a consumer on the demand curve (4) of a normal good. Use diagram.
- 32. (a) What are monotonic preferences?
 - (b) 'Higher indifference curve represents higher level of satisfaction.' Explain the statement (3) with the help of a diagram.
- 33. Giving reasons identify the equilibrium level of output using 'marginal cost and marginal (6) revenue' approach from the following.

Output (Units)	Total Revenue (`)	Total Cost (`)
1	10	8
2	18	15
3	24	21
4	28	25
5	30	33

OR

Distinguish between 'contraction in supply' and 'decrease in supply' of a commodity. Use diagram.

34. Read the following text carefully and answer the given questions on the basis of the same and common understanding:

Under perfect competition, there are a large numbers of sellers selling homogenous product. Each seller sells quite an insignificant portion of total market supply that none of them can influence the price in the market. The price of the commodity under perfect competition is determined by the forces of demand and supply of the product.

Every seller accepts the price as determined by the market. No individual firm can influence this price. It has to decide how much quantity of the commodity it wants to sell. Therefore, each firm is a price taker and industry is price maker.

As equilibrium price and equilibrium quantity are determined when quantity demanded is equal to quantity supplied. So, if there is any change, which leads to shift in the demand curve or supply curve or both, then equilibrium price and equilibrium quantity are bound to change.

- (a) Explain the implication of 'homogeneous product' under perfect competition.
- (b) Market for a good is in equilibrium. Explain with the help of diagram, the chain effects on equilibrium price and equilibrium quantity if increase in demand < Increase in supply. (3)

(1)

(3)