

ANANDALAYA PERIODIC TEST- 3 Class : XI

M.M: 40 Time: 1hour 30 mins.

General Instructions:

- 1. Please check that this question paper contains 17 questions.
- 2. All the questions are compulsory.
- 3. Marks for questions are indicated against each question.
- 4. One mark questions are required to be answered in one sentence each.
- 5. Three marks questions should be answered in about 60 words each.
- 6. Four marks questions should be answered in about 70 words each.
- 7. Six marks questions should be answered in about 100 words each.

SECTION A: MICROECONOMICS

For questions 1 and 2, read the following statements- Assertion and Reason and choose one of the correct alternatives given below:

Alternatives:

(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.
- Assertion: TC and TVC curves are parallel to each other. (1)
 Reason: The vertical distance between TC and TVC curves is TFC, which remains constant at all levels of output.
- 2. Assertion: Contraction in Supply leads to a downward movement along the same supply (1) curve.
 - **Reason:** Downward movement along the same supply curve occurs due to an increase in price of the commodity, other factors remaining constant.

Read, the following Case Study carefully and answer the questions 3 and 4 on the basis of the same.

In the short run, some inputs (land, capital) are fixed in quantity. The output depends on how much of other variable inputs are used. For example if we change the variable input (labour) the production function shows how much output changes when more labour is used.

In the short run producers are faced with the problem that some input factors are fixed. The firms can make the workers work for longer hours and also can buy more raw materials. In that case, labour and raw material are considered as variable input factors. But the number of machines and the size of the building are fixed. Therefore, it has its own constraints in producing more goods.

In the long run all input factors are variable. The producer can appoint more workers, purchase more machines and use more raw materials.

3.	Read the following statements carefully and choose the correct alternatives given below: Statement 1: Variable factors are not required in case of zero output. Statement 2: Fixed factors remain same in the short run irrespective of level of output.						
	Alternatives:						
	(A) Both the statements are true.						
	(B) Both the statements are false.						
	(C) Statement 1 is true and Statement 2 is false.						
	(D) Statement 2 is true and Statement 1 is false.						
4.	Variable factors		(1)				
	(A) can never be changed (B)	can be changed in the short run					
	(C) can be only changed in the long run (D)	does not vary directly with output.					
5.	Explain the relationship between marginal cost and average cost with the help of a diagram.						
6.	The coefficient of elasticity of supply of a commodity A is 3. How much quantity of the commodity will a seller supply when price rises by `1, if he supplies 30 units at `3 per unit?						

- 7. What will be the impact of increase in price of fertilizers and seeds on the supply curve of (4) rice? Explain using diagram.
- 8. Identify the phases of Law of Variable Proportions from the following schedule. Give reasons (6) for your answer.

Variable factor (units)	1	2	3	4	5	6	7	8
Total Product (units)	6	20	48	72	80	84	84	80

SECTION B: STATISTICS

9. There is a high degree of negative correlation between 'overweight' and 'life expectancy'. A (1) correlation coefficient consistent with the above statement can be _____.

(A) $r = 0.80$	(B) $r = 0.20$
(C) $r = -0.20$	(D) r = - 0.80

 10. The correlation between sale of cold drinks and day temperature is ______.
 (1)

 (A) positive
 (B) negative

 (C) zero
 (D) two

Read the following statements carefully and choose the correct alternatives given below: (1)
 Statement 1: Arithmetic mean is the most commonly used Measure of Central Tendency.
 Statement 2: Median is affected by the presence of extreme values in the data.
 Alternatives:

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

13.	Draw a scatter diagram showing perfect negative correlation.								(1)		
14.	State the formula for computing Karl Pearson's Coefficient of Correlation.								(1)		
15.	(a) Daily wages of ten workers in a factory are given below. Find the average daily wages.								(1)		
	140 1	50	180	200	220	250	260	300	350	450	
	(b) Find out mode from the following series:								(3)		
	Class		0-5	4	5-10	10-15		15-20	2	0-25]
	Frequency		2		4	15		6		7	
16.	5. From the following frequency distribution, find out the median:								(4)		
	Wages (`)		10-20	20-30	30-40	40-50	50-60) 60-70	70-80	80-90]
	No. of worker		10	11	10	5	6	15	3	10]
17	17 (a) State any two properties of correlation coefficient.(b) In a singing competition, two judges rank the contestants as follow:								(1) (5)		
	Judge 1		1		2	3		4		5]
	Judge 2 4				4 2 1			3		5	

Calculate coefficient of rank correlation.