Time: 03 hrs.   **MM=80**
General Instructions:

(i)   All questions are compulsory**.**
(ii)   Question No. 1-10 and 18-27 are very short-answer questions carrying 1 mark each. They are required to be answered in one sentence.
(iii) Question No.11-12 and 28-29 are short-answer questions carrying 3 marks each. Answers to them should not normally exceed 60 words each.
(iv)   Question No. 13-15 and 30-32 are short-answer questions carrying 4 marks each. Answers to them should not normally exceed 70 words each.
(v)   Question No. 16-17 and 33-34 are long-answer questions carrying 6 marks each. Answers to them should not normally exceed 100 words each.
(vi)   Word limit does not apply to numerical/ definition-based question.
_____
"A little progress each day adds up to big results".
(BEST WISHES CHILDREN)

SECTION-A

1. Read the following statement carefully and choose the correct alternative:
    a. Median can be derived graphically from Histogram.
    b. Median can be derived graphically from frequency curve.
    c. Median can be derived graphically from frequency polygon.
    d. Median can be derived graphically from both the Ogive.

2. Which of the following statement is correct about Average prices if the price index is 110?
    a. The price has increased by 10%
    b. The price has increased by 110%
    c. The price has decreased by 10%
    d. The price has decreased by 110%

3. For drawing lottery _____ sample is used. (Stratified/ Random)

4. If the values in a series are very large and the difference between the smallest value and zero is high, then we use _____ base line. (False/ Fall)

5. If the Mean of a series is 38 and Mode is 44. Median of the data will be_____.

6. Mean marks obtained by 200 Students are 80. Later on, it was found one value was read as 166 instead of 106.The correct Arithmetic mean of the data will be_____.

7. A curve based on a series where are two classes with highest frequencies is called_____ curve. (Bi-Modal / Mixed)

8. Positively Skewed curves have their tail more spread towards right. (True / False)

9. Formula of Price Relatives_____ **OR** Define Normal Year.

10. From the following data calculate Q3:

21	15	40	30	26	45	50	54	60	70	65

11. For the analysis of a company's performance, the company describes its performance through graphs. The analyst finds it difficult to analyse the performance of the company through graphs. Which values regarding company's performance are ignored by graphs.
(3)

OR

Can 'r' lie outside the -1 & 1 range depending on the type of data?

12. Draw a histogram & frequency curve from the following data: (3)

Marks	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
No. of Students	4	8	16	20	28	40	36	34	24	10

13. Suppose you want to know about the popularity of soccer player among the school students. For this, you will have to enquire from a large number of school students to collect desired information. (4)
    a. From the given information, identify the source of data involved in drawing such information.
    b. State and briefly explain two different methods of collecting such data.

14. Represent the following data using a Pie-diagram. (4)

Items	Food	Electricity	Water	Rent	Education
Expenditure by Family	500	200	150	50	100

15. Differentiate between Symmetrical distribution & Asymmetrical distribution of a series. Use diagram.
                                        OR   (4)

    Group data and ungrouped data

16. Write a short note on –   (2+4=6)
    a. Consumer Price Index
    b. Fisher's Idol Index No.

17. Examine whether there is any correlation between years of schooling of farmers and annual yield on the basis of following data, using Karl Pearson's method and interpret the result. (6)

Years of Schooling	1	3	4	5	7	8
Annual Yield	2	6	8	10	14	16

OR

Seven contestants in a poetry competition are judged by two judges in the following order. Calculate rank coefficient of correlation and also interpret the results.

Judge-1	12	10	8	10	11	9	15
Judge-2	26	20	24	20	18	22	20

(SECTION - B)

18. Which of the following statement is normative?

   a. People work harder if the wage is higher.
   b. Large government deficits cause an economy to grow more slowly.
   c. Reducing inequality should be a major priority for mixed economy.
   d. Printing too much money cause inflation.

19. Mr. John derives TU of 10 utils after having 4 burgers & TU of consuming 5 burgers is 9. What is the MU of John for the 5th burger?
    a. +1 Util   b. -1 Util   c. 0 Util   d. 9 Util
                                        OR
    Define Initial Utility.

20. Choose the correct pair:

Column 1	Column 2
1. Law of DMU	1. Point of Satiety
2. Marginal Utility	2. Fundamental Psychological law
3. MRS	3. Slope of Indifference Curve
4. Indifference Map	4. ΔTU/ Δ Q

Alternatives:

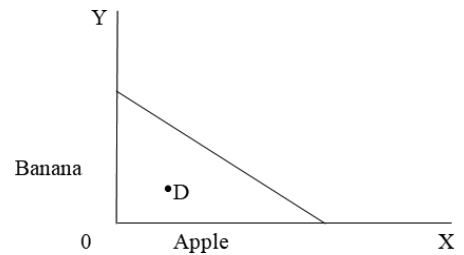   a. (1,1)   b. (2,2)   c. (4,4)   d. (3,3)

21. TU is at the point of Satiety.
    a. Maximum
    b. 0
    c. Infinity
    d. Minimum

22. In the following figure point "D" represents:
    a. Bundle which cost exactly the consumer's income
    b. Bundle which cost less than the consumer's income
    c. Bundle which is unattainable
    d. Both b & c

23. Read the following statements carefully: (1)
Statement 1 - When price falls with rise in output then both AR and MR curves slope upwards.
Statement 2 -When firms can increase their volumes of sales only by decreasing the price, then AR curve is steeper than MR curve.
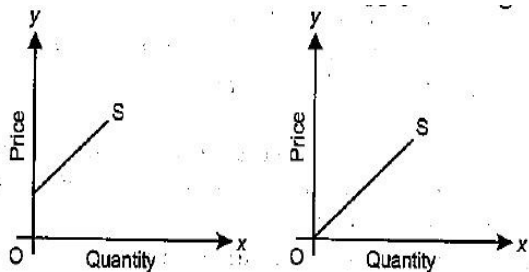Choose the correct alternative:
    a. Statement 1 is true and statement 2 is false.
    b. Statement 1 is false and statement 2 is true
    c. Both statements 1 & 2 are true.
    d. Both statements 1 & 2 are false.
24. The Coefficient of Es of a commodity is 0.4. What percentage change in supply will place if its price rises by 20%.
    a. 10%
    b. (–)10%
    c. 8%
    d. (-) 8%

25. Identify the Elasticity of supply of curve A and B from the following diagram:

    a. A (Es > 1), B (Es < 1)
    b. A (Es < 1), B (Es > 1)
    c. A (Es > 1), B (Es = 1)
    d. A (Es < 1), B (Es < 0)

26. Read the following statements: Assertion (A) and Reason (R). Choose one of the correct alternatives given below:
    Assertion (A): There is absence of abnormal profits and abnormal losses in the short run-in case of perfect competition.
    Reason (R): Under perfect competition, each firm faces a perfectly elastic demand curve.
    Alternatives:
    a. Both Assertion (A) & Reason (R) are True & Reason (R) is the correct explanation of Assertion (A)
    b. Both Assertion (A) & Reason (R) are True &Reason (R) is not the correct explanation of Assertion (A).
    c. Assertion (A) is True but Reason (R) is False.
    d. Assertion (A) is False but Reason (R) is True.

27. Read the following statements: Assertion (A) and Reason (R). Choose one of the correct alternatives given below:

Assertion (A): Minimum wage legislation is an example of imposition of price floor.

Reason (R): Under Minimum wage legislation, minimum wages are set below the equilibrium wages.

        Alternatives:

a. Both Assertion (A) & Reason (R) are True & Reason (R) is the correct explanation of Assertion (A)
b. Both Assertion (A) & Reason (R) are True &Reason (R) is not the correct explanation of Assertion (A).
c. Assertion (A) is True but Reason (R) is False.
d. Assertion (A) is False but Reason (R) is True.

28. Economic slowdown due to Covid has adversely affected demand for Indian Exports. What will be its effect on the production possibility frontier? (3)

OR

Why does the problem of choice arise for producer and consumers?

29. Explain the changes that will take place in the market for a commodity if the prevailing market price is less than the equilibrium price. Use diagram. (3)

30. In order to attract tourism to Jammu, Indian Government has recently launched special train Vande Bharat from Delhi to Katra, which has made journey comfortable and cheaper, compared to air travel. Comment how will the launch of this train effect the demand for the air travel. Use diagram.

(4)

OR

Giving suitable reason, state whether the following statements are true or false.

    a. Indifference curve to the right in indifference map always shows higher satisfaction level.
    b. Marginal rate of substitution increases as we move downward along the indifference curve.

31. Explain the Firm's demand curve in different forms of market. Use diagram. (4)

32. On the basis of the information given below, determine the level of output at which the producer will be in equilibrium. Use the marginal cost & marginal revenue approach. Give reasons for your answer.

(4)

Output	1	2	3	4	5	6	7
AR (Rs.)	7	7	7	7	7	7	7
TC (Rs.)	7	15	22	28	33	40	48

33. Find Elasticity of demand by total expenditure method: (6)
    a. When price falls from Rs. 10 to Rs.9 & demand rises from 9 to 10 units.
    b. When price falls from Rs. 8 to Rs.6 & demand rises from 20 to 40 units.
    c. When price falls from Rs.2 to 1 & demand rises from 5 to 8 units.

34. Identify the different output levels, which mark the three phases of the operation of the law of variable proportions from the following table: (6)

Units of variable factor	0	1	2	3	4	5
TP in units	0	8	20	28	28	20

OR

Suppose the market determined rent for apartments is too high for common people to afford. If the government comes forward to help those seeking apartments on rent by imposing control on rent, what impact will it have on the market of apartments?