Section - A

1. Which of the following facts is statistics? [1]
   (A) Ram secured 66% marks in English.
   (B) Ram secured 80% marks in Mathematics.
   (C) Ram secured 90% marks in Economics.
   (D) Ram secured 90% marks in Economics, this year, whereas he secured 80% marks in Economics previous year.

2. An investigator has collected required information by personal interview with the informants. What type of data it is? [1]
   (A) Primary   (B) Secondary   (C) Tertiary   (D) None of these

3. Statistics word is used in: [1]
   (A) Singular sense   (B) Plural sense   (C) Both (A) and (B)   (D) Neither (A) nor (B)

4. A graph showing a time series is called: [1]
   (A) Pie chart   (B) Histogram   (C) Ogive   (D) All of the above

5. Read the following Assertion (A) and Reason (R) and choose the correct alternative: [1]
   Assertion (A): The Class Interval needs to be continuous while drawing a Histogram.
   Reason (R): Histogram is a rectangular diagram using frequency distribution which are joined to one another.
   Alternative:
   (A) Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation of Assertion (A)
   (B) Both Assertion (A) and Reason (R) are true, but 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.

6. Which average is affected most by the presence of extreme items? [1]
   (A) Median   (B) Arithmetic mean   (C) Mode   (D) All of the above

   OR

   An index number, which accounts for the relative importance of the item is known as _____. [1]
   (A) Simple Index Number   (B) Weighted Index Number
   (C) Aggregate Index Number   (D) Average Index Number

Read the following passage and answer questions 7 to 10 that follows:

Happiness is considered as a kind of positive emotion which has a significant impact on the physical, cognitive and psychological mechanisms and improves human performance in different fields. This research aims to study the correlation between happiness and death anxiety in health personnel of Zareh hospital of city of Sari. The current research is a descriptive cross-sectional and correlative study. The population includes all of the health personnel of Zareh hospital located in the city of Sari and they are 226 individuals. Two questionnaires of Oxford Happiness Questionnaire and Templer's Death Anxiety Questionnaire were completed and surveyed by 144 individuals (97 females and 47 males) of health personnel chosen by simple random sampling. In order to analyze data, the inferential and descriptive statistics including simultaneous equation regression model, Pearson's correlation coefficient, cut-point, and t-test were used for two independent groups. Research results showed that for each one unit of increase in the variable of happiness 0.27 is decreased from the personnel's' death anxiety. Thus, there is a significant and inverse correlation between two variables of personnel's happiness and death anxiety. Also another part of the result showed that the difference between females' happiness and males' happiness was not significant.

7. _____ (Correlation/Regression/Index number) between happiness and death anxiety is being studied. [1]

8. _____ (Questionnaire/Interview/Survey) was completed by surveying 144 individuals. [1]

9. What type of correlation is present between happiness and death anxiety? [1]
   (A) Positive   (B) Negative   (C) Neutral   (D) Cannot be determined

Sample Question Papers

10. Read the following statements -Assertion (A) and Reason (R).
Assertion (A): There is a significant and inverse correlation between two variables of personnel's happiness and death anxiety.
Reason (R): Happiness is considered as a kind of positive emotion which has a significant impact on the physical, cognitive and psychological mechanisms and improves human performance in different fields.
Select the correct alternative from the following: [1]
(A) Both Assertion (A) and Reason (R) are true.
(B) Both Assertion (A) and Reason (R) are false.
(C) Only Assertion (A) is true.
(D) Only Reason (R) is true.

11. In how many groups, different commodities have been divided while constructing Wholesale Price Index in India? [3]

12. Calculate mean from the following series: [3]

Class-Interval	Frequency
0 – 2	2
2 – 4	4
4 – 6	6
6 – 8	4
8 – 10	2
10 – 12	6

OR

An inquiry into the budget of the middle class families in a certain city gave the following information :

Expenses on Items	Food 35%	Fuel 10%	Clothing 20%	Rent 15%	Miscellaneous 20%
Price(in ₹) in 2004	1,500	250	750	300	400
Price(in ₹) in 1995	1,400	200	500	200	250

What is the cost of living index of 2004 as compared with 1995? [3]

13. Construct a pie-diagram to represent the cost of construction of a house in Delhi: [4]

Items	Expenditure %
Labour	25
Bricks	15
Cement	20
Steel	15
Timber	10
Supervision	15

OR

The following table gives absolute values (in lakh of tonne) of food grains production in India: [4]

Year	Food Grains production (in lakhs of tonnes)
2002 – 03	1994
2003 – 04	1923
2004 – 05	2030
2005 – 06	1091

Represent the data by an appropriate bar diagram.

14. Find out Median value of the following distribution: [4]

Wages	No. of Workers
0 – 10	22
10 – 20	38
20 – 30	46
30 – 40	35
40 – 50	20

15. Calculate Mode from the following data: [4]

Marks	No. of students
0 – 10	5
10 – 20	12
20 – 30	14

30 – 40	10
40 – 50	8
50 – 60	6

16. Draw a frequency polygon of the following distribution of the students obtaining marks in Economics: **[6]**

Marks	No. of students
10 – 20	5
20 – 30	12
30 – 40	15
40 – 50	22
50 – 60	14
60 – 70	4

17. Calculate median from the following data: **[6]**

Size	Frequency
0 – 10	1
10 – 20	2
20 – 30	4
30 – 40	1
40 – 50	2

OR

Calculate coefficient of correlation between the price and quantity demanded:

Price	Demand
5	40
10	35
15	30
20	25
25	20

Section - B

18. Identify the correct pair of items from the following Columns I and II: **[1]**

	Column I		Column II
A.	Utility	1.	Bread and butter
B.	Normal Goods	2.	Rise in price
C.	Contraction in demand	3.	Capacity of a commodity to satisfy human wants
D.	Complementary goods	4.	Positively related

Alternatives:
(A) A – 1   (B) B – 2   (C) C – 3   (D) D – 4

OR

Read the following Assertion (A) and Reason (R) and choose the correct alternative: **[1]**
Assertion (A): If due to fall in the price of good X, demand for good Y rises, the two goods are complementary.
Reason (R): There is an inverse relationship between the demand for the good and the price of its complements.
Alternative:
(A) Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation of Assertion (A)
(B) Both Assertion (A) and Reason (R) are true, but 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.

19. Total utility is _____ at the point of satiety. **[1]**
(A) Minimum   (B) Maximum   (C) Zero   (D) None of these

20. Which of the following has elastic demand? **[1]**
(A) Matchbox   (B) Water   (C) Medicine   (D) Air conditioners

21. Law of demand states the _____ relationship between price and quantity demanded. **[1]**
(A) Direct   (B) Inverse   (C) Proportional   (D) None of the above

22. Read the following Assertion (A) and Reason (R) and choose the correct alternative: **[1]**
Assertion (A): Demand for salt is inelastic.
Reason (R): In case of elastic demand, percentage change in price of a commodity causes relatively less than percentage change in quantity demanded.

Alternative:
(A) Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation of Assertion (A)
(B) Both Assertion (A) and Reason (R) are true, but 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.

23. Identify the correct pair of items from the following Columns I and II: [1]

	Column I		Column II
A.	Unitary elastic supply curve	1.	U shaped Supply Curve
B.	Relatively elastic supply curve	2.	Vertical line parallel to Y–Axis
C.	Perfectly elastic supply curve	3.	Horizontal line parallel to X–axis
D.	Perfectly inelastic supply curve	4.	Downward sloping supply curve

Alternatives:
(A) A – 1   (B) B – 2   (C) C – 3   (D) D – 4 [1]

Read the extract given below and answer questions 24 to 27 that follows: [1]
Agricultural Development Bank of Pakistan uses the production function approach for measuring bank outputs and costs. A trans log cost function is estimated to provide an assessment of the bank's scale and scope efficiency, and to quantify the extent to which its production costs are sensitive to size and output mix. Results shows that the bank enjoys both overall and product-specific economies of scale and, therefore, there exists scope for the bank to expand its operations at declining average cost. Even though bank branches in all size categories enjoy economies of scale, the extent of such economies is larger for branches operating at a smaller scale of production. This implies that as the bank branches grow larger in size in terms of both loan and deposit accounts, they move closer to attaining increasing returns to a factor. It is also shown that the marginal costs of servicing both loan and deposit accounts decline as bank branches grow larger in size in terms of either the number of loans or the number of deposits. This confirms that branches operating at a larger scale of production have attained greater cost efficiency in terms of servicing the loan and deposit accounts.

24. Agricultural Development Bank of Pakistan uses the _____ (production/cost/utility) function approach. [1]

25. Economies of scale is larger for which type of bank? [1]
(A) Larger branches   (B) Smaller branches   (C) Medium Branches   (D) None of the above

26. When the banks grow in size, they move closer in achieving _____ (increasing/decreasing/ constant) returns to scale. [1]

27. The increasing returns to scale in larger branches is due to _____. [1]
(A) Increase in loans   (B) Increase in deposits   (C) Both (A) and (B)   (D) None of them

28. Under which market form a firm is called a 'price taker' and why? [3]

OR

Explain the implications of the feature "homogeneous product" in a perfectly competitive market. [3]

29. What are the characteristics of a perfectly competitive market? [3]

30. A consumer spends ₹1,000 on a good priced at ₹8 per unit. When price rises by 25 percent, the consumer continues to spend ₹1,000 on the good. Calculate price elasticity of demand by percentage method. [4]

31. Complete the following table: [4]

Price (₹)	Output (Units)	Total Revenue (TR in ₹)	Marginal Revenue (MR in ₹)
— / 4	1	6	—
—	—	—	2
— / 1	3	6	—
	—	—	(–) 2

OR

Giving reasons, state whether the following statements are true or false:
(i) Average product will increase only when marginal product increases.
(ii) With increase in level of output, average fixed cost goes on falling till it reaches zero.
(iii) Under diminishing returns to a factor, total product continues to increase till marginal product reaches zero.
(iv) When there are diminishing returns to a factor, total product always increases.

32. (i) Write three examples each of normative economics and positive economics. [2]
(ii) State three reasons which give rise to an economic problem. [2]

33. Explain the conditions of producer's equilibrium. [6]

OR

Explain any three factors that determine supply of a commodity.

34. Explain the distinction between budget set and budget line. When can a budget line shift? [6]