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Register Number:

5427

Name of the Candidate:

**B.Sc. DEGREE EXAMINATION - 2011**

(DOUBLE DEGREE)

(STATISTICS)

(PART-III: PAPER-I)

**710. DESCRIPTIVE STATISTICS**

December)

Maximum: 100 Marks

(Time: 3 Hours

SECTION-A

Answer any EIGHT Questions

(8×5=40)

Answer questions carry equal marks

1. Explain the qualitative and quantitative data with an illustration.
2. What is primary data? State any two methods of collecting primary data.
3. Explain the role of classification in data representation.
4. Calculate the median for the following frequency distribution:

Value	Frequency
Less than 100	50
100-200	90
200-300	158
300-400	68
400 and above	134
5. Write a short note on the following:
  - i) Skewness
  - ii) Kurtosis
6. For a moderately skewed data, the arithmetic mean is 200, the coefficient of variation is 8 and Karl Pearson's coefficient of skewness is 0.3. Find the mode and the median.
7. Calculate the Karl Pearson's coefficient of correlation from the advertisement cost and sales as per data given below.

Advertisement Cost(in 000 Rs.)	39	65	62	90	82	75	25	98	36	78
Sales (in lakh Rs.)	47	53	58	86	62	68	60	91	51	84
8. Distinguish between correlation and regression.
9. Explain the role of ANOVA.
10. Explain the different measure of Association between two attributes.

SECTION-B

Answer any THREE Questions

(3×20=60)

All questions carry equal marks

11. a) What are the main steps involved in a Sample Survey? Discuss the different sources of errors in such surveys  
 b) What is table? Draw a specimen table indicating various parts of it and explain the various parts of a table
12. a) Explain the different types of diagrammatic presentation of statistical data with an illustration  
 b) Define primary and secondary data. Explain their role in survey with suitable examples.
13. a) Explain the Concept of moments and its uses.  
 b) From the given information calculate Karl Pearson's coefficient of skewness and also quartile coefficient of skewness:

Measure:	Mean	Median	S.d.	3 <sup>rd</sup> Quartile	1 <sup>st</sup> Quartile
Place A:	256.5	201	215.4	260	157
Place B :	240.8	201.6	181.1	242	164.2

14. a) Calculate the rank correlation Co-efficient for the following data:  
 X: 35 37 38 42 44 46 51 54 55 56  
 Y: 40 32 39 42 41 31 50 52 46 57
- b) Find Karl Pearson's Co-efficient of correlation of the following data.
- | Age of husband<br>in years : | 20 | 22 | 23 | 25 | 25 | 28 | 29 | 30 | 30 | 34 |
|------------------------------|----|----|----|----|----|----|----|----|----|----|
| Age of wife<br>in years :    | 18 | 20 | 22 | 24 | 21 | 26 | 26 | 25 | 27 | 29 |
15. a) What are the properties of correlations coefficient? Explain clearly the difference between Partial and Multiple Correlation with illustrations.  
 b) From the following data obtain the two regression equations.
- |           |    |    |     |     |    |     |    |    |     |    |
|-----------|----|----|-----|-----|----|-----|----|----|-----|----|
| Sales:    | 91 | 97 | 108 | 121 | 67 | 124 | 51 | 73 | 111 | 57 |
| Purchase: | 71 | 75 | 69  | 97  | 70 | 91  | 39 | 61 | 80  | 47 |

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