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Total No. of Printed Pages: 2

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B. Com. (Hons.) (Semester – 2nd)

BUSINESS STATISTICS

Subject Code: BCOM1207

Paper ID: 140110

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a) “Statistics is the science of counting.” Give a definition of the statistics in light of this.
- b) What is the difference between primary and secondary data?
- c) What is the statistical table?
- d) Draw a two-dimensional diagram.
- e) What is a false baseline?
- f) Write merits of range as a measure of dispersion.
- g) Distinguish between dispersion and skewness.
- h) What is a line of best-fit?
- i) What do you mean by time reversal test?
- j) What is the coefficient of determination?

Section – B

(5 marks each)

- Q2. What are the uses and limitations of statistics? Discuss the importance of it as an aid to commerce.
- Q3. Describe what considerations are to guide you in constructing a statistical table.
- Q4. Describe the method of constructing a ‘cumulative frequency curve’. How would you determine the median and quartiles from such a curve?
- Q5.** Calculate the mean, median, and mode from the following data:
- | | | | | | | |
|------------|-----|------|-------|-------|-------|-------|
| Class: | 0-7 | 7-17 | 14-21 | 21-28 | 28-35 | 35-42 |
| Frequency: | 7 | 11 | 24 | 19 | 12 | 9 |
- Q6. Mean and standard deviation of two distributions of 100 and 150 times are 50, 5 and 40, 6 respectively. Find the standard deviation of all the 250 items taken together.

Section – C**(10 marks each)**

Q7. Fit a straight-line trend to the data given here by the method of least square:

Year	1959	1960	1961	1962	1963	1964	1965
Output (In Rs.)	672	824	968	1205	1464	1758	2058

Q8. Owing to changes in prices the consumer price index of the working class in a certain area rose in a month by one-quarter of what it was before to 225. The index of the food becomes 252 from 198, that of the clothing from 185 to 205, that of fuel and lighting from 175 to 195, and that of miscellaneous 138 to 212. The index of rent, however, remained unchanged at 150. It was known that the weights of clothing, rent and fuel, and lighting were the same. Find the exact weight of all groups.

Q9. From 120 items, computations are summarized as follows:

$$\sum x = 510, \sum y = 7140, \sum x^2 = 4150, \sum xy = 549000, \sum y^2 = 740200.$$

Estimate the regression equations from the above given data.