



JK Lakshmipat University, Jaipur
Institute of Management
End Term Examination (RETEST)
(December 2018)



Programme: BBA/B.Com-I Sem
Time: 2 Hours

Course: QT04: Fundamentals of Statistics
Max Marks: 40

Instructions: Attempt all questions. Show all steps and do the calculations alongside the question. Avoid overwriting and scratch work. Sketch appropriate graphs wherever required to illustrate your answer.

1. Explain various scales of measurement with suitable examples. Also, (12 marks)
identify the scales that you will use to measure the following variables:
 - a) Age (in Years)
 - b) Date of Birth
 - c) Salary
 - d) Number of Books in a Library
 - e) Position in a Marathon Race
 - f) Nationality
 - g) Religion
2. Marks obtained by 10 students in two tests on statistics are as shown below: (18 marks)

Student ID	1	2	3	4	5	6	7	8	9	10
Marks in Test 1	36	46	22	32	32	16	29	37	41	19
Marks in Test 2	42	44	36	43	21	22	24	32	46	38

- a) Compute the mean, standard deviation and coefficient of variation of two sets of data. (3)
 - b) Compare variability of Marks in Test 1 and Test 2. (2)
 - c) Create a scatter plot for marks in Test 1 and Test 2. (2)
 - d) Looking at the scatter plot, comment upon the relationship between marks in Test 1 and Test 2. (2)
 - e) Compute Pearson's correlation coefficient between marks in Test 1 and Test 2. (3)
 - f) Rank Order the students in both the tests and compute Spearman's rank correlation coefficient. (3)
 - g) Find the equation of a regression line to predict marks in Test 2 from the marks in Test 1. (3)
3. Identify and sketch appropriate charts for following scenarios. (6 marks)
 - a) Percentage of seats obtained by three political parties in a state election.
 - b) Relation between attendance and marks obtained in a course for 40 students.
 - c) Salaries of 500 employees of an organization.

4. Commodity prices for five commodities (per quintal in INR) for the last 3 years are as follows. (4 marks)

	2015	2016	2017
Wheat	2800	3000	3200
Sugar	3500	4000	4200
Pulses	12000	8000	11000
Oil	8000	9000	10000
Tea	28000	30000	32000

Using 2015 as the base period, express the commodity prices in 2016 and 2017 in terms of an unweighted aggregates index.

---X---X---X---