(Pages : 3) U – 4085

Reg. No. : .....

Name : .....

Second Semester B.B.A. LL.B. (Five Year Integrated) Degree Examination, February 2025

Paper III : BUSINESS STATISTICS

(2013 Admission Onwards)

Time : 3 Hours Max. Marks : 80

I. Answer any **five** of the following. Each question carries **2** marks. Answer should not exceed **50** words each.

1. Define statistics in plural sense.
2. What is meant by secondary data?
3. State the merits of median.
4. What is inter-quartile range?
5. What is meant by relative measures of dispersion?
6. What are equally likely events?
7. Define probability.
8. What is binomial distribution?

(5 × 2 = 10 Marks)

II. Answer any **four** of the following. Each question carries **4** marks. Answer should not exceed **120** words each.

1. Explain with example discrete and continuous series.
2. List the advantages of graphical presentation.
3. What is coefficient of variation and how to calculate it?

P.T.O.

Mar Gregorios College of Law Library

4. From the observations given below, find out Q1 and Q3.

48, 52, 56, 62, 66, 47, 51, 58, 60, 66, 68, 70, 64, 73, 63.

5. The average mark secured by 80 students was 40. Later on, it was discovered that a score of 54 was misread as 84. Find the correct average marks secured by the students.

6. A bag contains nine white, eight black and three red balls. If three balls are drawn at random from the bag. find the probability that all are black.

(4 × 4 = 16 Marks)

III. Answer any **four** of the following. Each question carries **6** marks.

1. 'Statistics is a science of estimates'. Explain.

2. What are the essentials of an ideal average? State the merits of mean.

3. Calculate median from the following data.

Size	Frequency
More than 500	0
More than 400	40
More than 300	98
More than 200	123
More than 100	165

4. Draw a less than ogive from the data given below.

Weekly wages ('00 Rs.) :	0-20	20-40	40-60	60-80	80-100
No. of workers	10	20	40	20	10

5. A candidate is selected for interview for three posts. For the first post there are 3 candidates, for the second 4 and for the third 2. What is the probability that the candidate is selected for at least one post?

6. The mean of a binomial distribution is 4 and its standard deviation is $\sqrt{3}$. What are the values of n, p and q?

(4 × 6 = 24 Marks)

Mar Gregorios College of Law Library

IV. Answer any **three** of the following. **Each** question carries **10** marks.

1. Define statistical investigation and explain the steps required for such an investigation.

2. Calculate the mean and standard deviation from the following data.

Value :	90-99	80-89	70-79	60-69	50-59	40-49	30-39
Frequency :	2	12	22	20	14	4	1

3. The mean weight of 400 students at a college is 60 kg and standard deviation is 10 kg. Assuming that the weights are normally distributed, find out as to how many students, weight is (a) Between 45 and 65 kg (b) More than 75 kg

4. There are two urns one containing 5 white and 4 black balls and the other containing 6 white and 5 black balls. One urn is chosen and one ball is drawn. If it is white what is the probability that the urn selected is first?

(3 × 10 = 30 Marks)

Mar Gregorios College of Law Library