

2008000203060001
EXAMINATION FEBRUARY-MARCH 2024
BACHELOR OF COMMERCE (HONORS)
(THIRD SEMESTER)
BUSINESS STATISTICS – I-LEVEL 6

[Time: As Per Schedule]

[Max. Marks: 50]

Instructions:

1. Fill up strictly the following details on your answer book

- a. Name of the Examination : **BACHELOR OF COMMERCE (HONORS)(THIRD SEMESTER)**
- b. Name of the Subject : **BUSINESS STATISTICS – I- LEVEL 6**
- c. Subject Code No : **2008000203060001**

2. All the questions are compulsory.
3. Figures to the right indicate full marks of the questions.
4. Simple calculator can be used.

Seat No:

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Student's Signature

- Q.1** a) Explain the following charts: **5**
- (i) Bar Chart
 - (ii) Frequency Polygon
- b) Explain the following terms with example. **3**
- (i) Median
 - (ii) Standard Deviation
- c) Explain: Additive Model **2**
- d) Explain multiplicative law of probability. **3**
- Q.2** a) Find first four central moments from the following data: **4**
- 1, 3, 5, 7, 9
- b) Which of the following two employees are more consistent? **6**

Production (in thousand units)	Employee A	2	3	4	3	2
	Employee B	2	5	8	2	5

c) Find three yearly moving average from the following data:

3

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Production ('000 tonnes)	26	27	28	30	29	27	30	31	32	31

Q.3 a) Explain the methods of collecting primary data.

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b) Fit a straight line trend to the following data.

4

Year	2016	2017	2018	2019	2020	2021	2022
Profit (in thousands in Rs)	60	72	75	65	80	85	95

c) Find the probabilities of throwing a total of six in a single throw with two unbiased dice.

3

Q.4 a) Among 1000 applicants for admission to M.Com. Statistics course in a college. 600 were statistics graduates and 400 were non statistics graduates; 30% of statistics graduates applicants and 5% of non statistics graduates applicants obtained admission. If an applicant selected at random is found to have been given admission, what is the probability that he/she is a statistics graduate?

4

b) Find the value of a and expected value of x:

3

X:	0	1	2	3
P(X):	1/8	a	3/8	1/8

c) Fit exponential trend $Y = a \cdot b^x$ to the following data:

5

Year	1941	1951	1961	1971	1981	1991
population	31.9	36.1	43.9	54.8	68.3	84.4
