

**2008000204060001**  
**EXAMINATION NOVEMBER 2024 (ATKT EXAM)**  
**BACHELOR OF COMMERCE (HONORS)**  
**(FOURTH SEMESTER)**  
**BUSINESS STATISTICS - II - LEVEL6**

[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) (FOURTH SEMESTER)**
- b. Name of the Subject : **BUSINESS STATISTICS - II - LEVEL6**
- c. Subject Code No : **2008000204060001**

2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

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Student's Signature

- Q.1**
- A. Give properties and applications of poisson distribution. **4**
  - B. The probability of getting 2 times an even number is double than the probability of getting 3 times an even number for a biased die when it is thrown for 5 times, find probability of success. Also find  $p(x=0)$ . **4**
  - C. In an intelligence test administered to 1000 children the average score is 40 and its standard deviation is 10. Assuming that the scores are normally distributed, find (1) The number of children exceeding score 50. **5**  
 (2) The minimum score of most intelligent 100 students

- Q.2**
- A. What is correlation co-efficient? Give interpretation of its different values. **3**
  - B.  $\Sigma X = 125, \Sigma Y = 100, Ex^2 = 650, \Sigma y^2 = 440, \Sigma xy = 508, n = 25$  Find equations of regression lines. Also find correlation coefficient **5**
  - C. Find Karl Pearson's correlation co-efficient for the following data: **5**

X	3	5	2	4	3	6	1
Y	11.5	21	14.5	15.5	7	22.5	10

- Q.3** A. Give meaning of forecasting. Discuss briefly various types of forecasting methods. **6**
- B. The prices of a commodity for the years 1990-1995 are given below. Fit a second degree parabola to these data. Forecast the price for 1996. **6**

Year	1990	1991	1992	1993	1994	1995
Price	100	107	128	141	181	192

- Q.4** A. What is index number? Explain briefly the problem usually faced in the construction of index number **5**
- B. From the following information, prepare fixed base index numbers by taking 2011 as base year: **3**

Year	2011	2012	2013	2014	2015	2016	2017
Price in Rs.	32	38	40	42	45	60	65

- C. Using the data given below calculate price index numbers for the current year by (1) Laspeyre's formula (2) Fisher's formula. **4**

commodities	Base year		Current year	
	Price (in Rs)	quantity	Price (in Rs)	quantity
A	40	11	80	12
B	100	7	80	15
C	30	13	90	11
D	130	15	200	18

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