

Roll No.

Y – 3645 (A)

B.C.A (Sixth Semester) (SPECIAL) EXAMINATION,

August 2021

(SECOND CHANCE)

Paper – 601

PROBABILITY AND STATISTICS

Time : Three Hours

Maximum Marks : 80

Minimum Pass Marks : 32

Note—Attempt *all* questions.

Unit-I

1. (a) Draw a Histogram from following distribution— 8

Class	0–10	10–20	20–30	30–40	40–50	50–60	60–70
Frequency	4	6	10	12	18	21	4

- (b) Calculate Arithmetic mean from following distribution— 8

Class	0–11	11–22	22–33	33–44	44–55	55–60
Frequency	9	17	28	26	15	8

Unit-II

2. (a) Calculate Kurtosis from following distribution— 8

Marks	5–15	15–25	25–35	35–45	45–55
No. of students	1	3	5	7	4

- (b) A and B throw a die. The one who throw 2 first wins. If A starts to throw find their chances of winning. 8

Unit-III

3. (a) Explain the concept of continuous probability distribution. 8
(b) If 10% bulb produced by a factory are defective find the probability that out of 5 bulbs chosen at random— 8

P.T.O.

- (i) None will be defective.
- (ii) One will be defective.
- (iii) At least two will be defective.

Unit-IV

4. (a) Calculate the Karl Pearson's correlation coefficient between X and Y as given below— 8

X	-10	-5	0	5	10
Y	5	9	7	11	13

- (b) Calculate rank correlation coefficient from following distribution— 8

X	76	90	98	69	54	82	67	52
Y	25	37	56	12	7	36	23	17

Unit-V

5. (a) Write short notes on the following— 8
- (i) Null hypothesis.
 - (ii) Two types of errors.
- (b) Two horses A and B were tested according to the time (in seconds) to run a particular track with the following results— 8

Horse A	28	30	32	33	33	29	34
Horse B	29	30	30	24	27	29	

Test whether you can discriminate between two horses. You can use the fact that 5 per cent value of t for 11 degrees of freedom is 2.20.