Jamia Hamdard
School of Management and Business Studies
Department of Management
Even Semester Examination - August 2023
BBA-II Semester
BBA-F-05 & BUSINESS STATISTICS

Roll No...

Duration: 3 Hour

Max.Marks -60

Section A - Short Answer (6X4=24)

Note: Attempt any Six Questions, All questions carry equal marks

Q1: Explain the importance of Statistics with respect to business and industry.

Q2: What do you understand by central tendency? Discuss various measures of calculating central tendency

Q3:. What is Lorenz curve? Explain its use?

Q4: Calculate the range and the coefficient of range of A's monthly earnings for a year.

Month	1	2	3	4	5	6	7	8	9	10	11	12
Monthly earnings (In '00 Rs.)	139	150	151	151	157	158	160	161	162	162	173	175

Q5: Calculate the Standard Deviation and coefficient of Standard deviation from the following data:

X	2	4	6	8	10
f	1	4	6	4	1

Q6: Discuss the concept of hypothesis testing. Explain null and alternative hypothesis with example.

Q7: Write short note on

a) Operations Research
b) Linear programming?

Q8: What is the probability of getting the following total with two dice?
(a) 9 (b) at least 9 (c) more than 9

Q9: Write short note on
(i) Level of significance
(ii) Z-test and t-test.

Section B-Long Answer *(12X3=36)*

Note: Attempt any Three Questions; All questions carry equal marks

Q1: Government of NCT of Delhi wants to understand the expenditure of various income groups on electricity after its decision to reduce electricity charges in Delhi. Data has been collected from various households. Following table contains information about electricity bills (in Rs.) for the month of November 2022 of sample of 30 DDA flats.

95	163	150	154	130	143
157	185	91	116	172	111
96	171	202	178	147	102
141	149	206	175	123	128
108	119	183	151	114	135

From the data, calculate: Mean, medium, modal electricity charges and interpret the value.

Q2: Explain the concept of correlation. Clearly explain with suitable illustrations its role in dealing with business problems.

Q3: Calculate Karl-Pearson's Coefficient of Correlation from the following:

Birth Rate	24	26	32	33	35	30
Death Rate	15	20	22	24	27	24

Q4: Obtain both regression equations from the following information;

	X Series	**Y Series**
Mean	18	100
S.D	14	20

Coefficient of correlation between X and Y =+0.8.

Q5: If a card is drawn at random from a pack of cards. What is the probability that the card drawn is

(i) Either a King or a Queen
(ii) Either a club or the Ace of diamond
(iii) Either a Spade or a King
(iv) Either a Queen or a red colour

Q6 Use graphical method to: Maximize: $Z=5x1+x2$;
Subject to
$x_1+x_2 \leq 10$,
$2x_1+3x_2 \geq 10$;
$x_1, x_2 \geq 0$