

[50] Seat No : _____

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SARDAR PATEL UNIVERSITY
S.Y.BCA (Third Semester) (CBCS) Examination 2019
Monday, 25th November
02.00 p.m. to 4.00 p.m.
US03SBKA26: Business Statistics

Maximum Marks: 35

Note: - Answers of all the questions (including multiple choice questions) should be written in the provided answer book only.

Q-1 Multiple Choice Questions. [05]

- 1) _____ is the value dividing the data into two equal parts.
A. Mean B. Median C. Mode D. None.
- 2) A square of _____ is called Variance.
A. Range B. Mean Deviation C. Standard Deviation D. Quartile Deviation.
- 3) Difference between the upper and lower class boundaries of a class is called _____.
A. Range B. Class Interval C. Class midpoint D. Class Limit
- 4) A _____ of an Different object taken r at a time, denoted by nPr is an order arrangement of only r objects of the n objects.
A. Permutation B. Combination C. Probability D. None.
- 5) Four persons out of five persons can be arranged in a row in ways.
A. 5 B. 10 C. 120 D. 24

Q-2 Answer the following questions (Any Five). [10]

- 1 Define Frequencies Distributions. What are the types of Frequency Distributions?
- 2 The following data indicate the number of children of 30 families. Prepare the frequency distribution based on the data.

1 1 2 0 3 1 1 2 2 2 3 0 2 1 1
2 2 3 2 2 1 1 2 2 3 2 1 1 2 1

- 3 Calculate the Mode for the following data:

X	1	2	3	4	5	6	7	8	9
FI	3	1	18	25	40	30	22	10	6

- 4 Find the Arithmetic Mean of values: 10,5,15,8,12
- 5 Find the number m of all possible five-letter "words" using the letters from the word "DADDY"
- 6 What is Probability? And define Mathematical or classical probability.
- 7 What is Combination? Write its formula.

Q-3 Prepare an inclusive frequency distribution consisting of six classes by classifying raw data of heights (in cms) of 30 students. [5]

165 153 158 149 152 145 162 151 155 148
141 149 157 148 168 162 141 145 152 150
149 154 160 162 153 161 150 159 148 163

OR

Q-3 The ages (in years) of 50 employees working in a department are as follows. [5]

27 32 57 34 36 48 49 31 51 34
49 45 51 29 47 36 50 46 30 46
35 35 48 41 53 36 37 47 47 30
43 45 42 30 46 50 28 44 48 49
50 52 49 36 34 43 36 38 50 39

Convert the above data into frequency distribution using Exclusive method.

(1)

(P.T.O)

Q-4 Find Mean, Median, and Mode for following Data. [5]

Weight. (Kg.)	93-97	98-102	103-107	108-112	113-117	118-122	123-127	128-132
No. of Persons	3	5	12	17	14	6	3	1

OR

Q-4 The following table gives the weights of 31 persons in a sample enquiry. Calculate i) Harmonic mean, ii) Geometric mean. [5]

Weight. (Kg.)	130	135	140	145	146	148	149	150	157
No. of Persons	3	4	6	6	3	5	2	1	1

Q-5 Calculate Spearman's rank correlation coefficient between advertisement cost and sales from the following data. [5]

Adv. Cost ('000 Rs.)	39	65	62	90	82	75	25	98	36	78
Sales (Lakh.)	47	53	58	86	62	68	60	91	51	84

OR

Q-5 Calculate the Karl Pearson's Coefficient for the following Heights(in inches) of Fathers(X) and their Sons(Y): [5]

X	65	66	67	67	68	69	70	72
Y	67	68	65	68	72	72	69	71

Q-6 In a Single throw with two Uniform dice find Probability of throwing (I) Five. (II) Eight. [5]

OR

Q-6 Four cards are drawn at random from a Pack of 52 cards. Find the Probability that [5]
 (I) They are a King, A Queen, A Jack and an Ace
 (II) Two are Kings and Two are Aces
 (III) All are Diamonds,
 (IV) There is One card of each Suit.
 (V) Two are Red and Two are Black.

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 (2)