

Seat No.	
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**B.C.A. (Semester - II) (CBCS) Examination Mar/Apr-2018
COMPUTER ORIENTED STATISTICS**

Time: 2½ Hours

Max. Marks: 70

- Instructions:** 1) All Questions are compulsory.
2) Figures to the right indicate full marks.
3) Use of any type of calculator is allowed.
4) Graph paper will be supplied on request.

Q.1 Select most correct alternative:-**14**

- 1) If units in the population are destroyed at the time of investigation, then the population is studied by _____ method only.
 - a) Census
 - b) sampling
 - c) a) and b) both
 - d) None of these
- 2) A measurable characteristic that takes particular values is called _____.
 - a) Discrete variable
 - b) Continuous variable
 - c) Constant
 - d) Attributes
- 3) Arrangement of data is necessary to determine _____.
 - a) A.M.
 - b) Median
 - c) Mode
 - d) None of these
- 4) The measure of dispersion that based on all observations is _____.
 - a) Range
 - b) s.d
 - c) Coefficient of range
 - d) All of these
- 5) The correlation between two variables is zero if they changes _____.
 - a) In same direction
 - b) Opposite direction
 - c) At random
 - d) None of these
- 6) To estimate the value of Y for known value of X, the equation of line of regression _____ is used.
 - a) Y on X
 - b) X on Y
 - c) Both a and b
 - d) None of these
- 7) If $\sum p_1q_1=x$, $\sum p_0q_0=y$, $\sum p_1q_0=v$, $\sum p_0q_1=w$, then Paasche's price index number is _____.
 - a) (v/y)
 - b) $(v/y)100$
 - c) (x/w)
 - d) $(x/w)100$
- 8) The events A and B are independent if _____.
 - a) $P(A \cap B) = 0$
 - b) $P(A \cap B) = P(A).P(B)$
 - c) $P(A \cap B) = 1$
 - d) None of these
- 9) If each observation is increased by 5, then median will be _____.
 - a) Increased by 5
 - b) Decreased by 5
 - c) As it is
 - d) None of these
- 10) The correlation between X and X is _____.
 - a) +1
 - b) -1
 - c) Zero
 - d) None of these

Q.4 Attempt any two of the followings:-

- a) Draw less than ogive to represent the following data and hence obtain median.

Weight in Kg.	50-55	55-60	60-65	65-70	70-75	75-80
No. of students	8	17	30	26	12	4

- b) Find price index number for the year 2005 from the following data by

- 1) Simple aggregate method
- 2) Simple average of relative's method.

Commodity	EG	FH	HK	KL
Price in 2009	35	70	125	58
Price in 2010	40	66	140	72

- c) Define Karl Pearson's correlation coefficient and interpret $r=+1, -1, 0$

Q.5 Attempt any two of the following:-

- a) Define Probability and state addition and multiplication laws of probability.

- b) Given: $n=10, \Sigma X=90, \Sigma Y=110, \Sigma X^2=1225, \Sigma Y^2=1725, \Sigma XY=1425$
Obtain equation of line of regression X on Y and estimate X for Y = 25.

- c) The A.M. of 100 observations is 80. At the time of calculations two observations 91 and 98 were wrongly taken as 81 and 78. Find correct mean.