

VIDYASAGAR MAHAVIDYALAYA
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Department of Commerce
B.COM 1st SEMESTER
STATISTICS

Marks: 50

Group-A

1. Answer the following questions:

10 x 4 = 40

- a)** The numbers 6,8,10,12,13 and x are arranged in an ascending order. If the mean of the observations is equal to the median, find the value of x.
 (i) 71 (ii) 17 (iii) 18 (iv) 81
- b)** The marks of 10 students of a class in an examination arranged in ascending order are as follows: 13, 35, 43, 46, x, x+4, 55, 61, 71, 80.
 If the median marks are 48, find the value of x. Hence find the mode of the given data.
 (i) X=46, mode= 45 (ii) X=46, mode= 46 (iii) X=46, mode= 55 (iv) X=44, mode= 46
- c)** Find the mode of the following sets of numbers: 3, 2, 0, 1, 2, 3, 5, 3.
 (i) 0 (ii) 1 (iii) 2 (iv) 3
- d)** Standard deviations _____.
- (i) $\sqrt{\left(\frac{\sum x}{n}\right)^2 - \frac{\sum x}{n}}$ (ii) $\sqrt{\frac{\sum x^2}{n} - \frac{(\sum x)^2}{n}}$
- (iii) $\sqrt{\frac{\sum x^2}{n} - \left(\frac{\sum x}{n}\right)^2}$ (iv) $\sqrt{\left(\frac{\sum x}{n}\right)^2 - \frac{\sum x^2}{n}}$
- if n be the number of values of a variable x
- e)** Compute CoV(X,Y) for the following pairs of observations:
 (15,44), (20,43) (25,45) (30,37) (40,34) (50,37)
 (i) 39.15 (ii) 39.17 (iii) -39.17 (iv) -39.15
- f)** Find the mean of first 50 natural numbers.
 (i) 25.4 (ii) 25.5 (iii) 25.6 (iv) 25.7
- g)** The average marks scored by 50 students in a class were calculated to be 38. Later it was found that, marks of two students were wrongly copied as 34 & 23 instead of 43 & 32. Find the correct average marks.
 (i) 37.36 (ii) 38.63 (iii) 39.36 (iv) 38.36
- h)** Find the median of the following numbers.
 3, 5, 0, 4, 9, 7, 6, 2, 8
 (i) 5 (ii) 6 (iii) 7 (iv) 8
- i)** The mean of numbers 6, y, 7, x, 14, is 8. Find the relation between x and y.
 (i) x+y = 11 (ii) x+y = 13 (iii) x-y = 11 (iv) x-y =13
- j)** Find by interpolation the value of function f(x) where x=7

x	2	4	6	8
Y	1	2	5	8
	5	8	6	9

- (i) f(x)=71.20 (ii) f(x)=72.40 (iii) f(x)=72.50 (iv) f(x)=71.5

Group-B

2. Answer the following questions:

5 x 2 = 10

- a) The way/ways of measuring central tendency of statistical data are:
(i) Mean, Median (ii) Median, Mode (iii) Mean (iv) Mean, Median, Mode
- b) _____ are the values of a statistical data which divide the whole set of observations into four equal parts.
(i) lower quartile (ii) upper quartile (iii) quartile (iv) middle quartile
- c) Mean – Mode = \square (Mean – Median)
(i) 2 (ii) 3 (iii) 4 (iv) 5
- d) For the following set of numbers, find the median 10,75,3,81,17,27,4,48,12,47,9,15.
(i) 16.0 (ii) 16.1 (iii) 16.2 (iv) 16.3
- e) Continuous data takes up _____.
(i) only integral values (ii) all values (iii) only non-integer values (iv) all real values

Submit your answer at this email id- vm.bcomhonours@gmail.com OR vm.bcompass@gmail.com