

Roll No. _____

PGIIS-N 1022 A-2K14
M.A./M.Sc. IInd Semester (CBCS) Degree Examination
Statistics
(Basic Statistics)
Paper - OET 2.1
(New)

Time :3 Hours

Maximum Marks : 80

Instructions to Candidates:

Answer any six questions from part A and five from Part-B.

Part-A

Answer any six questions.

(6×5=30)

1. Discuss various types of variables and attributes.
2. What is classification? How do you prepare a frequency distribution without classes?
3. Discuss the construction of a frequency polygon.
4. Define Arithmetic mean (A.M) outline its properties.
5. What is mode? What are its properties?
6. Define dispersion. What are the pre-requisites of an ideal measure of dispersion?
7. Explain Kurtosis.
8. What is a scatter diagram? What are its uses?

Part - B

Answer any five full questions.

9. a) What are the precautions to be followed during classification?
b) The marks obtained by the students of a class are given below. Prepare a frequency distribution with first class interval as 20-30. Also draw the frequency polygon.
40, 20, 30, 40, 45, 46, 50, 46, 55, 60, 65, 80,
90, 95, 35, 45, 46, 50, 46, 55, 60, 85, 75, 70,
70, 65, 60, 55, 56, 42, 25, 30, 65, 80, 70, 46,
72, 62, 52, 79, 88, 40, 80, 50, 47, 56, 60, 40,
20, 40, 30, 50, 55, 60, 65, 25, 20, 25, 72, 92

(3+7)

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10. a) Discuss the properties of median
b) Obtain the 60th percentile of the following distribution..

class	0-2	2-4	4-6	6-8	8-10	10-20	20-40	40-80
Frequency	48	20	12	12	11	10	08	07 (3+7)

11. a) How do you obtain the mode of an irregular distribution?
b) Find the mode of the following distribution.

x	0	1	2	3	4	5	6	7	8
f	20	30	25	35	20	25	30	70	20 (4+6)

12. a) The means and variances of marks of boys, girls and all students of a class are given below.

	Boys	Girls	Entire class	
Means		50	60	58
Variances	25	20	σ^2	(5+5)

If there are 20 boys in the class, find σ^2

- b) Obtain the missing frequency from the following distribution given that the mean is 111/32.

x	1	2	3	4	5	6
f	5	?	6	7	4	5 (5+5)

13. a) Define coefficient of variation. What are its uses?
b) Compute the coefficient of variation of the ages of students given below 20, 22, 21, 20, 23.

14. a) What is skewness?

- b) Obtain the nature of the following distribution by computing Pearson's coefficient of Skewness.

Class	5-10	10-15	15-20
Frequency	5	10	5

15. a) Distinguish between linear correlation and linear regression.
b) Examine whether the correlation between the ages of husbands and wives is

significant given the following?

Age of husband	25	26	27	28	29
Age of wife	20	22	24	26	28

16. Write short notes on any two of the following

(5+5)

- Bivariate frequency table
 - Ogives
 - Regression lines.
 - Mean Deviation.
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