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PGIIS-1019-A-18
M.A./M.Sc. IInd Semester Examination
STATISTICS
(Basic Statistics) (CBCS)
Paper : OET : 2.1

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

Answer any six questions from Part - A and Five questions from Part - B.

PART - A

(6×5=30)

Answer any **SIX** questions :

1. Outline the construction of histogram.
2. Define variable and attributes. Give examples.
3. What are the requisites of an ideal measures of dispersion.
4. Explain the grouping method of computation of mode.
5. Write a note on percentiles.
6. Find coefficient of variation for the first squares of '5' natural numbers.
7. Define Kurtosis. Discuss its types. How do you measure it by moments.
8. Explain the method of estimation of regression lines using least squares method.

PART - B

(5×10=50)

Answer any **FIVE** full questions.

9. a) Discuss the construction of frequency curve. **(5+5)**
- b) The following table gives the result of three centers of a public examination.

Centre	No. of examinees	Mean score	Standard deviation
A	200	25	3
B	250	10	4
C	300	15	5

Calculate the mean and the standard deviation of the combined scores of the three centers.

10. a) Define less than ogive and more than ogive curves. How they are constructed?
 b) For the following frequency distribution find approximate value of median by drawing the ogive curves. (5+5)

Weight (gram)	410-420	420-430	430-440	440-450	450-460	460-470	470-480
No. of apples	15	20	45	55	45	20	15

11. a) Define arithmetic mean. Discuss its properties.
 b) For the following frequency distribution median is 46.75. Find the missing frequency. (5+5)

Weights	20-30	30-40	40-50	50-60	60-70
No. of persons.	3	5	20	?	5

12. a) Define mean deviation. Discuss its properties.
 b) Find mean deviation about mean for the following data.

Income (in Rs.)	30-50	50-70	70-90	90-110	110-130	130-150	150-170
No. of persons	54	100	140	300	230	125	51

13. The runs scored by two batsman in 10 matches are given below. (10)

X	32	28	47	63	71	39	10	60	96	14
Y	19	31	48	53	67	90	10	62	40	80

- i) Find average runs scored by two batsman.
 ii) Which of the batsman is more consistent and why?
 14. a) Write a note on Skewness. How do you measure it by Bowley's coefficient method.
 b) The table was formed using the marks obtained by some students in an examination.

Marks	0-10	10-20	20-30	30-40
No. of Students	10	29	52	9

Compute moment coefficient of kurtosis. Hence decide the nature of the distribution. (5+5)

15. Calculate the coefficient of correlation from the following data and interpret it. (10)

X	1	2	3	4	5	6	7	8	9
Y	9	8	10	12	11	13	14	16	15

Also obtain the equations of two lines of regression.

16. Write short notes (Any Two) (5+5)
- Linear correlation.
 - Deciles.
 - Measures of central tendency.
 - Significance of correlation coefficient.