

End Semester Examination, 2016
Department of Public Policy and Public Administration
Central University of Jammu

SET-I

Course No: PGPPA2F007T

Maximum Marks: 100 Marks

Title: Statistical Method & Computer Application

Maximum Time: 3 hours

This question paper consists of three sections. A, B and C

Section A

Choose the correct answer. Each question carries 1.5 marks.

10 x 1.5=15 Marks

- I. A graph that uses vertical bars to represent data is called a.
a. Line graph b. Bar graph c. Scatter plot d. Vertical graph
- II. The first quartile
a. contains at least one third of the data elements
b. is the same as the 25th percentile
c. is the same as the 50th percentile
d. is the same as the 75th percentile
- III. Which of the following symbols represents the mean of the sample?
a. σ^2 b. σ
c. μ d. \bar{x}
- IV. For any normal probability curve, the value of skewness (S_k) is-
a. More than 2.58 b. Less than 1.96
c. Zero d. equal to 1.0
- V. If all the points of the scatter diagram lies on the same straight line which moves from top left to right below then we say that there is perfect negative correlation between variables X and Y and the value of the coefficient of correlation r is equal to-
a. Perfect negative correlation
b. Perfect positive correlation
c. Strong positive correlation
d. Partial negative correlation
- VI. The concept of regression was given by:
a. Disraeli b. Simon
c. Galton d. Taylor
- VII. If an increase (or decrease) in the value of one variable leads to an increase (or decrease) in the value of other variable or changes in the values of two variables are in the same direction, it is:
a. Negative correlation b. Positive correlation
c. Coefficient of correlation d. Partial correlation
- VIII. Chi-square is based on following assumption:
i. sample from groups should be independent
ii. subjects in sample should be random and independently selected
iii. number of subject should be large
iv. number of subject should be small
- Which one of the combination is correct-
a. i,ii b. i,ii,iii
c. i,iii d. i,ii,iii,iv

P.T.O.

- IX. A stage of coding of qualitative data in which a researcher organizes the codes, link them and discovers key analytic categories is called:
- open coding
 - axial coding
 - selective coding
 - none of above
- X. Algorithm is a ----- for calculation especially using a computers.
- Process
 - Software
 - Flow chart
 - Language

Section B

Answer any five questions

Each question in this Section carries eight marks.

05x08=40 Marks

1. a. What do you understand by the term 'graphical representation of data'? Explain its advantages. (4,4)

Or

- b. Draw the histogram of the following frequency distribution.

Class	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	05	10	20	30	20	10	05

(8)

2. a. Find the mean of the following group data by using short-cut method.

Class	0-4	5-9	10-14	15-19	20-24	25-29
Frequency	1	4	12	3	4	4

(8)

Or

- b. Define and explain the terms skewness and kurtosis along with their main types.

(4, 4)

3. a. Calculate Pearson Product moment co-efficient of correlation between the academic achievements of students in two different exams for the following data by short cut method.

X	1	3	5	7	9
Y	9	7	5	3	1

(8)

Or

- b. State the equation of regression line of Y on X clarifying the symbols involved in it.

(8)

4. a. What are non-parametric tests? How are they different from parametric tests? Discuss their merits and limitation.

(3,3,2)

Or

P.T.O.

- b. Calculate and interpret the significance of difference between the mean score of two groups for the following data:

	Group A	Group B
Mean	43	30
S.D.	8	7
N	65	65

5. a. Describe the factors which the researcher should keep in the view while making interpretation of the results, and formulating conclusions and generalizations. (8)

Or

- b. Explain with illustration how you will use computer for data analysis. (8)

Section C

Attempt any 3 questions. Each question carries 15marks.

03x15= 45 Marks

1. What do you understand by the term cumulative frequency distribution and cumulative percentage frequency distribution? Prepare a frequency distribution table and extend it to a cumulative frequency distribution and cumulative percentage frequency distribution for the below data using a class interval of 5 for a group of 40.

32	78	27	65	88	83	63	52
86	70	42	66	56	44	63	59
73	52	43	69	59	46	71	65
42	55	39	70	57	49	78	70
34	61	62	77	81	72	79	69

(5,10)

2. What is the relevance of standard deviation in research? Compute the standard deviation of the frequency distribution given below:

Class	41-50	51-60	61-70	71-80	81-90	91-100	101-110	111-120	121-130
Frequency	02	03	05	08	10	06	04	00	02

(5,10)

P.T.O.

3. Explain the meaning, types and parameters for interpretation of coefficient of correlation. Also calculate rank order coefficient of correlation for the following data-

Students	Rank assigned by X	Rank assigned by Y
A	1	2
B	5	3
C	4	5
D	6	4
E	3	6
F	2	1
G	7	7
H	9	8
I	10	9
J	8	10

(5,10)

4. Explain the meaning, types and its importance of hypothesis in social science research.

(5,5,5)

5. Explain certain computational aids which are used by researchers in performing complex computations with speed and accuracy.

(15)

