

24/11/2014

DOON UNIVERSITY, DEHRADUN

First Semester Examination, 2014

School of Social Sciences

Msc. Economics Integrated

Course Code: SSEI-114 Statistical methods

Time Allowed: 2 Hours

Maximum Marks: 30

Note: Attempt All Questions from Sections A & Section B & any two questions from Section C

Section A (Attempt all questions)

(1*5=5)

1. A graph used to show a distribution of cumulative frequency is called _____.
2. Verification of data is not possible if the data is _____.
3. A sample comprises of _____ characteristics as of the Census.
4. Arranging data in an array is necessary condition to calculate _____.
5. Conversion of exclusive series to inclusive is possible by _____.

Section B (Attempt all four questions)

1. In a class of 60 students, 20% scored more than 90 in mathematics, 35% scored more than 90 in statistics, 25% were debarred and were not allowed to sit in the examination. Rest of the children equally scored in English & Computers. With the above data, use an appropriate graph and show them diagrammatically. Also calculate how many students were there in each category. (3 marks)
2. In a firm, a letter is typed by Ankit in 4 minutes, by Mohit in 5 minutes, by Sangeeta in 6 minutes & by Kapil in 10 minutes. What is the average time taken in completing one letter? How many letters do you expect to be typed in 6 hours? (3 marks)
3. An incomplete distribution is given below, find the missing frequencies and calculate the arithmetic mean by direct method.

Marks	0-20	20-40	40-60	60-80	80-100	100-120	120-140
No. Of Students	4	26	?	10	?	6	3

1. If the value of median is 49.09, calculate the missing terms. The total number of students is 80. (4 marks)

2. Calculate the geometric mean of the following price relatives:- (3 marks)

Commodity	Wheat	Rice	Pulses	Sugar	Salt	Oils
Price Relative	237	198	156	124	107	196

Section C (Long questions. Attempt any 2 questions)

(2*6=12 marks)

1. 100 students appeared for the final exams. Calculate the average deviation through mean & median from the following data & verify the answer:

Marks (Less than)	Less than 80	Less than 70	Less than 60	Less than 50	Less than 40	Less than 30	Less than 20	Less than 10
No of Students	100	90	80	60	32	20	13	5

2. Calculate the value of mode through analysis table from the data given below:

Travel Time	More than 0	More than 10	More than 20	More than 30	More than 40	More than 50	More than 60	More than 70
Frequency	218	216	200	168	133	62	23	3

Also specify that whether the value of modal class lies in the same group by inspection method & analysis table or not?

3. For a group of 5000 shopkeepers, the daily earnings vary from Rs200 to Rs.800. the earnings of 4 percent of the shopkeepers are under Rs250 and those of 10 percent are under Rs.300; 15 percent of the shopkeepers earn Rs.600 and over and 5 percent of them earn Rs.700 and over. The quartile earnings are Rs.400 & Rs.540 and the sixth deciles is Rs 500.
- Put this information in the form of frequency table.
 - Also find out the median value of the data by putting them in class interval of 100 starting from 200 up till 800.