



INSTITUTE OF MANAGEMENT
Pinnacle MBA-I Term

End Term Exam (Sep 2019)
ID2111: Foundation of Data Analysis

Time: 2.0 Hours

Max Marks: 60

Instructions: All questions are compulsory. Statistical tables shall be provided on request.

1. Screenshot of Descriptive Analysis run on indicated variables is as shown below. Comment upon the central tendency, dispersion and shape of the distributions. Also, sketch rough histogram from the available information. 10 marks

	A	B	C		A	B	C
1	income			1	age		
2				2			
3	Mean	69.4748438		3	Mean	42.0585938	
4	Standard Error	0.98398205		4	Standard Error	0.15361895	
5	Median	45		5	Median	41	
6	Mode	25		6	Mode	39	
7	Standard Deviation	78.7185637		7	Standard Deviation	12.2895157	
8	Sample Variance	6196.61228		8	Sample Variance	151.032197	
9	Kurtosis	33.8766646		9	Kurtosis	-0.60209728	
10	Skewness	4.5127542		10	Skewness	0.29912707	
11	Range	1107		11	Range	59	
12	Minimum	9		12	Minimum	18	
13	Maximum	1116		13	Maximum	77	
14	Sum	444639		14	Sum	269175	
15	Count	6400		15	Count	6400	

2. Fill in the blanks:

5 marks

- For two distributions whose means are comparable, _____ can be used to compare their variability. However, when means are incomparable, _____ should be used for the same.
- Distribution of age of people attending a rock concert is likely to be _____ skewed.
- Distribution of marks obtained by a class of students who are all very bright and intelligent is likely to be _____ skewed.
- In a box plot, if the upper whisker is longer than the lower whisker, the data set is _____ skewed.

these probabilities are accurate answer the following questions that pertain to a randomly chosen group of 10 students.

- a) What is the probability that four are going to pursue higher education?
 - b) What is the probability that none opt for campus placement?
 - c) What is the probability that two are going to join their family business?
 - d) What is the probability that at least eight are going to pursue higher education?
9. A self-administered course on Data Analytics was undertaken by a batch of students who completed the programme in different no. of hours. Time taken to complete the programme was found to be a normal variate with a mean of 50 hours and a standard deviation of 10 hours. If a student is chosen at random from the batch, then find the probabilities that he/she completed the program in : 10 marks
- a) Between 50 and 65 hours
 - b) More than 70 hours
 - c) Between 55 and 65 hours
 - d) Less than 58 hours
 - e) Between 42 and 57 hours

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