

Daffodil International University
Department of Business Administration
Course Title: Statistics for Decision-Making
Course Code: 0542-213

Semester: Fall 2024
Time: 1 Hour 30 minutes
Section: All

Examination: Midterm Term
Full Marks: 25
Teachers' Initial: DMSA, Urmi, AS

[NB: Answer all the following questions]

01	a)	Describe the population and sample with example.	(CLO 1, L 1) 1																								
	b)	Discuss different sources of data. Explain any one method to collect primary data.	(CLO 1, L 2) 3																								
	c)	Identify the following variables according to qualitative, quantitative, discrete or continuous: Gender, Sales volume of Daffodil PC, Soft drink preference, Number of PC sales per month, IELTS score, and Number of courses taken each semester.	(CLO 1, L 1) 3																								
02		The number of employees of 30 branches of Sonali Bank LTD PLC are given below;																									
		55 , 37, 30, 29, 17, 24, 33, 12, 37, 57, 48, 25, 42, 29, 17, 35, 42, 50, 19, 21, 14, 34, 36, 15, 23, 37, 41, 27, 23, 18																									
	a)	Is this data is continuous data or discrete data?	(CLO 2, L 3) 1																								
	b)	Which 'class interval' do you suggest to organize the data?	(CLO 2, L 3) 1																								
	c)	Organize the data according to the frequency distribution table. Find the relative frequency.	(CLO 2, L 3) 4																								
03		The unemployment rate in Bangladesh by month is given in the table below: <table style="margin-left: 20px; border-collapse: collapse;"> <tr> <td>Jan</td><td>Feb</td><td>Mar</td><td>Apr</td><td>May</td><td>Jun</td><td>Jul</td><td>Aug</td><td>Sep</td><td>Oct</td><td>Nov</td><td>Dec</td> </tr> <tr> <td>8.7</td><td>8.8</td><td>8.7</td><td>7.8</td><td>7.3</td><td>7.8</td><td>6.6</td><td>6.5</td><td>6.5</td><td>6.8</td><td>7.3</td><td>7.6</td> </tr> </table>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	8.7	8.8	8.7	7.8	7.3	7.8	6.6	6.5	6.5	6.8	7.3	7.6	
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec																
8.7	8.8	8.7	7.8	7.3	7.8	6.6	6.5	6.5	6.8	7.3	7.6																
	a)	What is the arithmetic mean of the Bangladesh unemployment rates?	(CLO 2, L 3) 2																								
	b)	Find the median and the mode for the unemployment rates.	(CLO 2, L 3) 2																								
	c)	Find the standard deviation of the unemployment rate.	(CLO 2, L 3) 2																								
04		The profit of 30 companies of Bangladesh are given below;																									
		<table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Profit Range (crore)</th> <th>Number of companies</th> </tr> </thead> <tbody> <tr> <td>0-20</td> <td>5</td> </tr> <tr> <td>20-40</td> <td>8</td> </tr> <tr> <td>40-60</td> <td>11</td> </tr> <tr> <td>60-80</td> <td>4</td> </tr> <tr> <td>80-100</td> <td>2</td> </tr> </tbody> </table>	Profit Range (crore)	Number of companies	0-20	5	20-40	8	40-60	11	60-80	4	80-100	2													
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0-20	5																										
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	a)	Find the mean of profit.	(CLO 2, L 3) 2																								
	b)	Find the median of profit	(CLO 2, L 3) 2																								
	c)	Find the mean deviation of profit.	(CLO 2, L 3) 2																								