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Daffodil International University

Faculty of Science & Information Technology
Department of Information Technology & Management
Midterm Examination, Fall 26
Course Code: STAT 101; Course Title: Introduction to Statistics
Sections & Teachers: A & TBN

Time: 1:30 Hours **Marks: 25**

Answer ALL Questions

[The figures in the right margin indicate the full marks and corresponding course outcomes. All portions of each question must be answered sequentially.]

1.		An insurance company would like to determine the proportion of all medical doctors who have been involved in one or more malpractice lawsuits. The company selects 500 doctors at random from a professional directory and determines the number of doctors who have been involved in a malpractice lawsuit.		CLO-1 *Level-2*
	a)	**Identify** what the **six** key statistical terms refer to in the following study.	[Marks-3]	
	b)	**Identify** the appropriate level of measurement of the data in the above study. Suggest **two** possible analysis that can be performed for the observed data.	[Marks-2]	
2.		The data below shows the number of minutes students spent on reading in a single day: 10, 17, 15, 10, 18, 22, 15, 20, 12, 25, 18, 10, 22, 15, 35, 12, 20, 18, 25, 15, 10, 22, 35, 12, 18		CLO-2 *Level-3*
	a)	**Construct** a frequency distribution table for the students reading time and create a **histogram** to display the frequency distribution.	[Marks-5]	
	b)	**Calculate** the mean, median, and mode from the frequency table constructed in 2(a). What **percentage** of students spent between 15 to 20 minutes on reading?	[Marks-8]	
3.		A startup records the daily number of app downloads for two competing mobile apps. App A: 5, 40, 42, 45, 48, 50, 52, 55, 58, 60, 62, 65 App B: 14, 17, 20, 25, 28, 32, 35, 40, 45, 48, 52, 100		CLO-3 *Level-3*
	a)	**Calculate** the sample standard deviation and CV for both apps. Which app shows more **variability** in download behavior? Which app shows more **consistency**?	[Marks-7]	

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