	Ahsanullah University of Science and Technology
	Department of Computer Science and Engineering
	SET A, Class Test #2, Fall 2023

Course Code: CSE 4261	Course Title: Data Analytics	
Time: 20 Minutes	Date: 27/5/2024	Full Marks: 10

ID:	Name:

1. Interpret the Regression Line and R^2 from the following dataset: where the mass, y(grams), of a chemical is related to the time, x(seconds), for which the chemical reaction occurs.

Time, x (seconds)	Mass, y (grams)
55	4040
77	120120
1212	180180
1616	210210
2020	240240

	Ahsanullah University of Science and Technology
	Department of Computer Science and Engineering
	SET B, Class Test #2, Fall 2023

Course Code: CSE 4261	Course Title: Data Analytics	
Time: 20 Minutes	Date: 27/5/2024	Full Marks: 10

ID:	Name:

1. Find the equation of the regression line and R^2 value. To see how students' reaction skills have improved over a year, eight students took a reaction test at the start and end of the year. These are their scores:

Student	Liam	Felicity	Adian	Mel	Leroy	Vic	Lawrie	Louise
First Test, x	5656	7575	6161	6161	6767	7272	6262	6161
Second Test, y	2121	3939	3434	2121	3232	2424	2929	24

	Ahsanullah University of Science and Technology
	Department of Computer Science and Engineering
	SET C, Class Test #2, Fall 2023

Course Code: CSE 4261	Course Title: Data Analytics	
Time: 20 Minutes	Date: 27/5/2024	Full Marks: 10

ID:	Name:

1. Consider the following dataset with given transactions and find out the accepted rules. The minimum support is 30% and confidence is 50%.

TransactionId	Items
1	{A,C,D}
2	{B,C,D}
3	{A,B,C,D}
4	{B,D}
5	{A,B,C,D}

Ahsanullah University of Science and Technology	
Department of Computer Science and Engineering	
SET D, Class Test #2, Fall 2023	
Course Code: CSE 4261	Course Title: Data Analytics
Time: 20 Minutes	Date: 27/5/2024 · Full Marks: 10
ID:	Name:

1. Interpret the Regression Line and R^2 from the following foods dataset: where the number of grams of carbohydrates, x, and the number of Calories, y.

Carbohydrates (x)	Calories (y)
8	120
9.5	138
10	147
6	88
7	108
4	62

Ahsanullah University of Science and Technology	
Department of Computer Science and Engineering	
SET E, Class Test #2, Fall 2023	
Course Code: CSE 4261	Course Title: Data Analytics
Time: 15 Minutes	Date: 27/5/2024 · Full Marks: 10
ID:	Name:

1. Omar has a piece of rope. He ties a knot in the rope and measures the new length of the rope. He then repeats this process several times. Some of the data collected are listed in the table below. Where x is the Number of Knots Find, and Y is the Length of the Rope. Find the equation of the regression line and R^2 value.

Number of Knots	4	5	6	7	8
Length of Rope (cm)	64	58	49	39	31

Ahsanullah University of Science and Technology	
Department of Computer Science and Engineering	
SET F, Class Test #2, Fall 2023	
Course Code: CSE 4261	Course Title: Data Analytics
Time: 20 Minutes	Date: 27/5/2024 · Full Marks: 10
ID:	Name:

1. Consider the following dataset with given

transactions and find out the accepted rules. The minimum support is 33% and confidence is 50%.

Transaction	Items Purchased
1	Milk, Egg, Bread, Butter
2	Milk, Butter, Egg, Ketchup, Butter
3	Bread, Butter, Ketchup
4	Milk, Bread, Butter
5	Bread, Butter, Cookies
6	Milk, Bread, Butter, Cookies
7	Milk, Cookies
8	Milk, Bread, Butter
9	Bread, Butter, Egg, Cookies
10	Milk, Butter, Bread
11	Milk, Bread
12	Milk, Bread, Cookies, Ketchup