**Part – A**

Load the diabetes data (diabetes.arff, Path in Windows - C:\Program Files\Weka-3-8-6\data) .

Run the following algorithm in Weka and provide TP Rate, FP Rate and Confusion Matrix using both cross validation and percent split:

1. J48 (Provide Screen shot of the tree)
2. BayesNet
3. Any classifier of your choice.

Provide screen shot for each run. (4 Marks)

Record and Discuss accuracy of all above experiment. (4 Marks)

Which of the 3 Classification technique you would propose to your client and why? (2 Marks)

Upload your work in Word or PDF.

**Part – B**

**Attachment - CoolStuff Gift Sales.xlsx (Attached)**

In Tableau or MS PowerBI:

1. Create a dashboard that demonstrates the company’s performance.
	1. Be sure to illustrate product mix, highest and lowest performing customers and provide your own visualizations on aspects of the data or KPIs that are relevant to the business.
	2. Include a maximum of four different charts in your dashboard.

In the Report (Word Document)

1. Provide a discussion/explanation of what each dashboard graph/chart is saying, and include why you chose that particular graph/chart to visualize the information.

1. Provide two KPIs for each of the following and any Critical Success Factors (CSFs) to support them based on the data:
	* Overall revenue
	* Sales mix
	* Geographic performance
	* Weakest customer performance (bottom three)

1. Develop example two SMART objectives for each of the categories listed above.

1. Calculate the overall NPS for the company. What is this information telling you?

1. What is the revenue churn from Q2 to Q3 in 2018?

1. What is the company’s cancellation rate (abandon rate for their orders)?

1. How much revenue was lost due to cancellation?

**Submission Requirement:** Provide a PDF of your dashboard and a Word file for your written responses.

**Mark Distribution:**

Dashboard (10)–

* Product Mix (3)
* Own Visualization (2)
* Highest and lowest performing customers (2)
* 4 Charts (3)

Word Document (15):

* Explanation for Dashboard (3)
* 2 KPIs for CSFs (3)
* SMART Objective (2)
* NPS (2)
* Revenue Churn (2)
* Cancellation Rate (2)
* Revenue Lost (1)