

ASSIGNMENT NO 4

INTRODUCTION TO DATA SCIENCE

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**QUESTION NO 1**

**1)**

18 instances in the dataset.

**2)**

7 input instances in the dataset.

**3)**

2 output instances in the dataset.

**4)**

4 categorical input instances in the dataset.

**5)**

6 MALE

34 FEMALE

**QUESTION NO 2**

**1)**

MLP: 12 instances are incorrectly classified.

Random Forest: 1 instances are incorrectly classified.

SVM: 0 instances are incorrectly classified.

**2)**

**80/20 SPLIT**

MLP: 7 instances are incorrectly classified.

Random Forest: 0 instances are incorrectly classified.

SVM: 1 instances are incorrectly classified.

**3)**

BEARD and SACRF are the most powerful attributes.

Scarf represents female while Beard represents male.

**4)**

**DROPING Powerful attributes**

**MLP:**

15 instances are correctly classified.

2 instances are incorrectly classified.

**Random Forest:**

10 instances are correctly classified.

3 instances are incorrectly classified.

**SVM:**

13 instances are correctly classified.

3 instances are incorrectly classified.