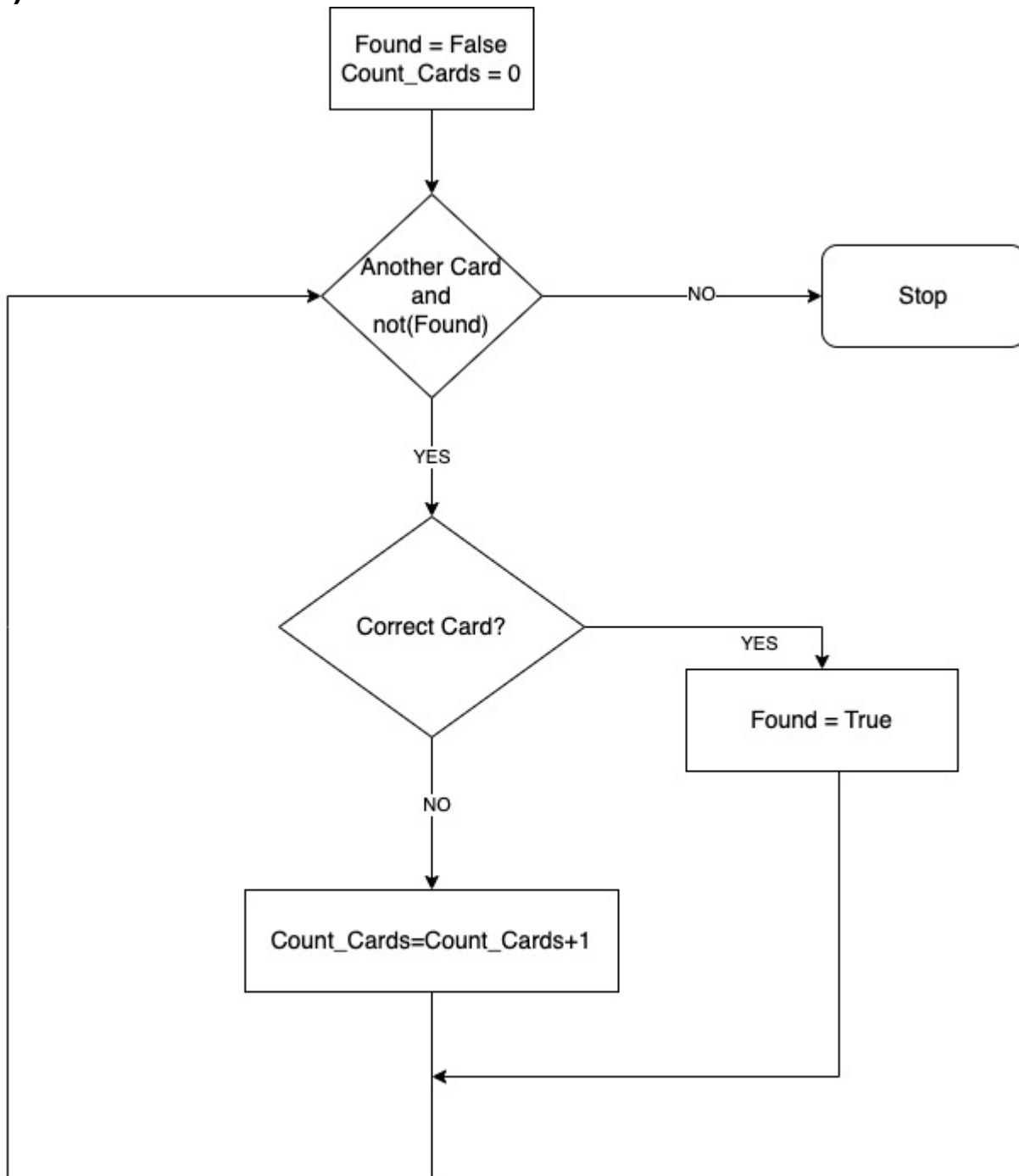# Week 2 Provisional CT Graded Assignments

(Provisional Means These Are Not Final Answers , Final Will Be Released On Last Day Of Deadline)

Use the following flowchart to answer the below two questions 1) and 2).

2 points

1.If the **Correct Card** is found after 11 iterations of **Another Card**, the **Correct Card** is the 11th , then what is the value of **Count-Cards**?

(a) 9

(b) 10

(c) 11

(d) 12

2.Let's use the **Scores** dataset and the **Correct Card** is the user's requirement. How many possible score-cards does the iteration go through if the user requirement is found in the **First Card** and all other cards do not match?

(a) 30

(b) 20

(c) 10

(d) 1

3.The following procedure finds the minimum marks in **Chemistry scored** by a **Male** student from the **Scores** dataset. However, the programmer may have made mistakes in one or more steps. Identify any such steps (if any).

Step 1: Arrange all cards in a single pile called Pile 1
Step 2: Maintain a variable MIN-CHEMISTRY and initialize with first Chemistry
SCORE where Gender = M
Step 3: If Pile 1 is empty then stop the iteration
Step 4: Read the top card of Pile 1
Step 5: If Gender == M and Chemistry $\geq$ *MIN-CHEMISTRY*
Step 6: Update Chemistry = MIN-CHEMISTRY
Step 7: Move the current card to Pile 2 and repeat from step 3

(a) 2

(b) 3

(c) 4

(d) 5

(e) 6

4.A programmer has written the following algorithm to find the number of students who are below the **Avg- Marks** in **Scores** dataset. He/she committed a mistake. Can you identify it?

Step 1: Arrange all cards cards in Pile 1
Step 2: Calculated Average marks are stored into Avg-Marks.
Step 3: Initialize Student-Count with 0
Step 4: Stop iteration, when Pile 1 is empty
Step 5: Read one top card from Pile 1
Step 6: If Avg-Marks $\leq$ *TOTAL then add value 1 to Student-Count*

Step 7: Move the current card to Pile 2 and repeat Step 4

(a) Step 4

(b) Step 5

(c) Step 6

(d) Step 7

5.The shopping bill dataset contains **Shop Names [Big Bazar, SV Stores, Sun General, More Supermarket]**. The programmer wants to find out the **store-wise** minimum bill amount. How many variables are required?

Correct Answer :- 4

3 points

6.Assume that there are 5 cards in the Paragraph words dataset [' It', 'is', 'a', 'rainy', 'Monday.']. What is the value of **A** after the below algorithm is executed?

Correct Answer :- 1

7.Step 1: Arrange all cards in Pile 1, cards repeated
Step 2: Initialize A with 10
Step 3: Stop iteration, when Pile 1 is empty
Step 4: Read one top card from Pile 1
Step 5: If A ≥ *LetterCount then Update A = LetterCount*
Step 6: Move the current card Pile 2 and repeat Step 3

3 points
2 points

If **X** is a card from the **Shopping Bill** dataset. Identify the list of fields that can be accessed through card **X**

(a) X.Item

(b) X.Diary/Food

(c) X.Qty

(d) X.Milk

3 points

8.Which of the following is the correct pseudocode to find the longest verb length in the **Paragraph Words** dataset?
(a)

LongestVerb=NONE

```
MaxVerbLength=0
While (Pile 1 has more cards)
{
      Read top card X in Pile 1
      if ( X.PartOfSpeech == "Verb" AND MaxVerbLength < X.LetterCount)
      {
            LongestVerb = X.Word
      }
}
```

(b)

```
LongestVerb = NONE
MaxVerbLength = 0
While (Pile 1 has more cards)
{
   Read top card X in Pile 1
   if ( X.PartOfSpeech == "Verb" AND MaxVerbLength < X.LetterCount)
   {
         LongestVerb = X.Word
         MaxVerbLength=X.LetterCount
   }
}
```
(c)

```
LongestVerb = NONE
While (Pile 1 has more cards)
{
   Read top card X in Pile 1
   if ( X.PartOfSpeech == "Verb" AND LongestVerb < X.LetterCount)
   {
         LongestVerb = X.Word
   }
}
```
(d) None of the above

9.To find out the Minimum Total Marks in **Scores** dataset. Recommended initial value of **Min-Total-Marks** variable
(a) 100

(b) 0

(c) 1

(d) 282

2 points

10.Match the following using the pseudocode concept

Column 1	Column 2
a) ==	i) True
b) =	ii) Equality

c) $56 \geq 7$ *iii) Assignment*

(a) a - ii), b - i), c - iii)

(b) a - iii), b - i), c - ii)

(c) a - ii), b - iii), c - i)

(d) a - iii), b - ii), c - i)