Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No
Show Progress Bar :	No

Group I

Group Number :	1
Group Id :	64065311131
Group Maximum Duration :	0
Group Minimum Duration :	90
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	355
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No
Revisit allowed for group Instructions? :	Yes
Maximum Instruction Time :	0
Minimum Instruction Time :	0
Group Time In :	Minutes
Navigate To Group Summary From Last Question? :	No
Disable Submit Button During Assessment? :	No
Section Selection Time? :	0
No of Optional sections to be attempted :	0

Sem1 CT

Section Id :	64065330303
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	15
Number of Questions to be attempted :	15
Section Marks :	50
Display Number Panel :	Yes
Group All Questions :	No
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	64065367485
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 1 Question Id : 640653469334 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0

Question Label : Multiple Choice Question

THIS IS QUESTION PAPER FOR THE SUBJECT "FOUNDATION LEVEL : SEMESTER 1: COMPUTATIONAL THINKING"

ARE YOU SURE YOU HAVE TO WRITE EXAM FOR THIS SUBJECT?
CROSS CHECK YOUR HALL TICKET TO CONFIRM THE SUBJECTS TO BE WRITTEN.

(IF IT IS NOT THE CORRECT SUBJECT, PLS CHECK THE SECTION AT THE TOP FOR THE SUBJECTS REGISTERED BY YOU)

Options :

6406531559881. ✔ YES

6406531559882. ✖ NO

Question Number : 2 Question Id : 640653469335 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0

Question Label : Multiple Choice Question

Scores

SeqNo	Name	Gender	DateOfBirth	TownCity	Mathematics	Physics	Chemistry	Total
0	Bhuvanesh	M	7 Nov	Erode	68	64	78	210
■ ■ ■								
29	Naveen	M	13 Oct	Vellore	72	66	81	219

Words

SeqNo	Word	PartOfSpeech	LetterCount
0	It	Pronoun	2
■ ■ ■			
64	cane.	Noun	4

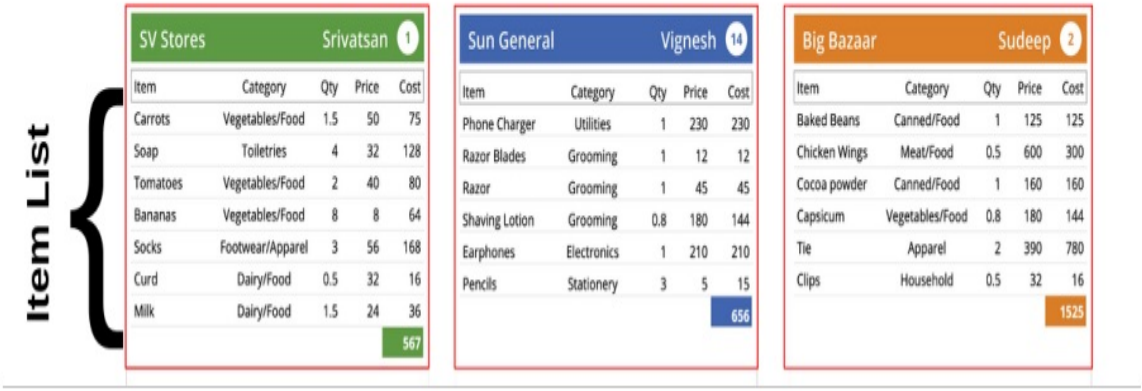
Library

SeqNo	Name	Author	Genre	Language	Pages	Publisher	Year
0	Igniting Minds	Kalam	Nonfiction	English	178	Penguin	2002
■ ■ ■							
29	Malgudi Days	Narayan	Fiction	English	150	Indian Thought	1943

Olympics

SeqNo	Name	Gender	Nationality	Host country	Year	Sport	Medal
0	Karnam Malleswari	F	Indian	Australia	2000	Weightlifting	Bronze
			- - -				
49	Michael Phelps	M	American	China	2008	Swimming	Gold

Three sample cards out of 30 for Shopping Bills dataset



Options :

6406531559883. ✔ Useful Data has been mentioned above.

6406531559884. ✖ This data attachment is just for a reference & not for an evaluation.

Sub-Section Number : 2

Sub-Section Id : 64065367486

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 3 Question Id : 640653469336 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Multiple Choice Question

Let **X** and **Y** be two rows in the "Words" dataset. Select the most appropriate datatype for each item/expression in the left column.

Field	Data Type
a. X.Word == Y.Word	1. String
b. X.Word == "a"	2. Invalid
c. X.PartOfSpeech	3. Boolean
d. X.LetterCount	4. Integer

Options :

6406531559885. ✔ a - (3), b - (3), c- (1), d - (4)

6406531559886. ✖ a - (1), b - (3), c- (4), d - (3)

6406531559887. ✖ a - (3), b - (2), c- (1), d - (4)

6406531559888. ✖ a - (1), b - (2), c- (3), d - (4)

Question Number : 4 Question Id : 640653469337 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Multiple Choice Question

The following pseudocode is executed using the "Words" dataset. What will **count** represent at the end of the execution?

```
count = 0
while(Table 1 has more rows){
    flag = False
    Read the first row X in Table 1
    if(X.PartOfSpeech == "Noun"){
        flag = True
    }
    if(X.LetterCount >= 4){
        flag = True
    }
    if(flag){
        count = count + 1
    }
    Move X to Table 2
}
```

Options :

6406531559889. ✖ Number of words which are nouns and have at least four letters

6406531559890. ✖ Number of words which are either nouns or have at least four letters but not both

6406531559891. ✔ Number of words which are either nouns or have at least four letters or both

6406531559892. ✖ Number of words which are not nouns and have at most three letters

Sub-Section Number : 3

Sub-Section Id : 64065367487

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 5 Question Id : 640653469338 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

The following pseudocode is executed using the "Scores" dataset. What will **count2** represent at the end of the execution?

```
count1 = 0, count2 = 0
while(Table 1 has more rows){
    Read the first row X in Table 1
    if(X.Gender == 'F' or X.Mathematics > X.Physics){
        count1 = count1 + 1
    }
    else{
        count2 = count2 + 1
    }
    Move X to Table 2
}
```

Options :

6406531559893. ✖ Number of male students whose Physics marks are greater than Mathematics marks

6406531559894. ✔ Number of male students whose Physics marks are greater than or equal to Mathematics marks

6406531559895. ✖ Number of female students whose Physics marks are greater than or equal to

Mathematics marks

6406531559896. ✖ Number of female students whose Physics marks are less than or equal to Mathematics marks

Question Number : 6 Question Id : 640653469339 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

The following pseudocode is executed using the "Library" dataset. Procedure **biGenre**(**A**) returns True if the author **A** has written equal number of fictional and non-fictional books. Choose the correct code fragment to complete the pseudocode. Assume that the dataset has only two possible geners.

```
Procedure biGenre(A)
    count = 0
    while(Table 1 has more rows){
        Read the first row X in Table 1
        Move X to Table 2
        ******************
        * Fill the code *
        ******************
    }
    if(count == 0){
        return(True)
    }
    return(False)
End biGenre
```

Options :

```
if(X.Author == A){
    if(X.Genre == "Fiction"){
        count = count + 1
    }
    else{
        count = count - 1
    }
}
```

6406531559897. ✔

6406531559898. ✖

```
if(X.Author == A){
    if(X.Genre == "Fiction"){
        count =  1
    }
    else{
        count = - 1
    }
}
```

6406531559899.

```
if(X.Author == A){
    count = count + 1
}
if(X.Genre == "Fiction"){
    count = count + 1
}
else{
    count = count - 1
}
```

6406531559900.

```
if(X.Author == A){
    if(X.Genre == "Fiction"){
        return(True)
    }
    else{
        return(False)
    }
}
```

Question Number : 7 Question Id : 640653469340 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

The following pseudocode is executed using the "Olympics" dataset. What will **count** represent at the end of the execution? Assume that every player has a distinct name.

```
count = 0
while(Table 1 has more rows){
    Read the first row X in Table 1
    Move X to Table 2
    flag = False
    while(Table 1 has more rows){
        Read the first row Y in Table 1
        if(X.Name == Y.Name){
            if((X.Sport == Y.Sport) and (X.Medal != Y.Medal)){
                flag = True
            }
            Move Y to Table 2
        }
        else{
            Move Y to Table 3
        }
    }
    if(flag){
        count = count + 1
    }
    Move all rows from Table 3 to Table 1
}
```

Options :

6406531559901. ✔ Number of players who have won different medals in the same sport

6406531559902. ✖ Number of players who have won the same medal in different sports

6406531559903. ✖ Number of pairs of players who have won different medals in the same sport

6406531559904. ✖ Number of pairs of players who have won the same medal in different sports

Sub-Section Number :	4
Sub-Section Id :	64065367488
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 8 Question Id : 640653469341 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Selectable Option : 0

Question Label : Multiple Select Question

The following pseudocode is executed using the "Library" dataset. Assume there are **m** books with distinct names that are written by **n** authors and each book is written by only one author. Assume that every author has a distinct name.

```
count1 = 0, count2 = 0
while(Table 1 has more rows){
    Read the first row X in Table 1
    Move X to Table 2
    count1 = count1 + 1
    while(Table 1 has more rows){
        Read the first row Y in Table 1
        if(X.Author == Y.Author){
            count2 = count2 + 1
            Move Y to Table 2
        }
        else{
            Move Y to Table 3
        }
    }
    Move all rows from Table 3 to Table 1
}
```

At the end of the execution of the above pseudocode, choose the correct option(s). It is a Multiple Select Question (MSQ).

Options :

6406531559905. ✔ **count1 = n**

6406531559906. ✖ count1 = m

6406531559907. ✔ count2 = m - n

6406531559908. ✖ count2 = m + n

Question Number : 9 Question Id : 640653469342 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Selectable Option : 0

Question Label : Multiple Select Question

The following pseudocode is executed using the "Scores" dataset. At the end of the execution, **A** captures the number of students who are either male from Bengaluru or have scored lower marks in Physics than the average Physics marks. Assume that the variable **Avg** holds the value of the average Physics marks. But the pseudocode may have mistakes. Identify all such mistakes (if any). Assume that all statements not listed in the options below are free of errors.

It is a Multiple Select Question (MSQ).

```
1  A = 0
2  while(Table 1 has more rows){
3      Read the first row X in Table 1
4      C = False, D = False
5      if(X.Gender == 'M' or X.TownCity == "Bengaluru"){
6          C = True
7      }
8      if(X.Physics < Avg){
9          D = True
10     }
11     if(C and D){
12         A = A + 1
13     }
14     Move X to Table 2
15 }
```

Options :

6406531559909. ✖ Line 1: Incorrect initialization of **A**

6406531559910. ✔ Line 5: Condition to update **C** is incorrect

6406531559911. ✔ Line 11: Condition to update **A** is incorrect

6406531559912. ✖ No error in the code

Sub-Section Number :	5
Sub-Section Id :	64065367489
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 10 Question Id : 640653469343 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Selectable Option : 0

Question Label : Multiple Select Question

The following pseudocode is executed using the "Scores" dataset. At the end of the execution, **count** captures the number of pairs of students who are of the same gender or are from the same city but not both. Choose the correct code fragment to complete the pseudocode.

It is a Multiple Select Question (MSQ).

```
count = 0
while(Table 1 has more rows){
    Read the first row X in Table 1
    Move X to Table 2
    while(Table 1 has more rows){
        Read the first row Y in Table 1
        Move Y to Table 3
        count = count + findPair(X, Y)
    }
    Move all rows from Table 3 to Table 1
}
Procedure findPair(X, Y)
    **************************
    ***** Fill the code ******
    **************************
End findPair
```

Options :

6406531559913. ✔

```
A = 0, B = 0
if(X.Gender == Y.Gender or X.TownCity == Y.TownCity){
    A = A + 1
}
if(X.Gender == Y.Gender and X.TownCity == Y.TownCity){
    B = B + 1
}
return(A-B)
```

6406531559914. ✖

```
A = 0, B = 0
if(X.Gender == Y.Gender and X.TownCity == Y.TownCity){
    A = A + 1
}
if(X.Gender == Y.Gender or X.TownCity == Y.TownCity){
    B = B + 1
}
return(A-B)
```

6406531559915. ✔

```
A = False, B = False
if(X.Gender == Y.Gender){
    A = True
}
if(X.TownCity == Y.TownCity){
    B = True
}
if((A and not B) or (not A and B)){
    return(1)
}
return(0)
```

```
A = False, B = False
if(X.Gender == Y.Gender){
    A = True
}
if(X.TownCity == Y.TownCity){
    B = True
}
if((A or not B) and (not A or B)){
    return(1)
}
return(0)
```

6406531559916.

Question Number : 11 Question Id : 640653469344 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Selectable Option : 0

Question Label : Multiple Select Question

Two words are said to be conjugate if they fulfill following conditions:

- They are different words
- Number of vowels are same in both words
- Number of consonants are same in both words

For a row **X** in the "Words" dataset, assume that **vCount(X)** return the number of vowels in **X**.*Word*. At the end of the execution, **count** stores the number of conjugate pairs. Choose the correct code fragment(s) to complete the pseudocode. It is a Multiple Select Question (MSQ).

```
count = 0
while(Table 1 has more rows){
      Read the first row X in Table 1
      Move X to Table 2
      while(Table 1 has more rows){
            Read the first row Y in Table 1
            *****************
            * Fill the code *
            *****************
            Move Y to Table 3
      }
      Move all rows from Table 3 to Table 1
}
```

Options :

6406531559917. ✔

```
if(X.Word != Y.Word){
    if(X.LetterCount == Y.LetterCount){
        if(vCount(X) == vCount(Y)){
            count = count + 1
        }
    }
}
```

6406531559918. ✖

```
if(X.Word == Y.Word){
    if(X.LetterCount == Y.LetterCount){
        if(vCount(X) == vCount(Y)){
            count = count + 1
        }
    }
}
```

6406531559919. ✔

```
if(X.Word != Y.Word){
    if(vCount(X) == vCount(Y)){
        if(X.LetterCount - vCount(X) == Y.LetterCount - vCount(Y)){
            count = count + 1
        }
    }
}
```

```
if(X.Word == Y.Word){
    exitloop
}
else{
    if(X.LetterCount == Y.LetterCount){
        if(vCount(X) == vCount(Y)){
            count = count + 1
        }
    }
}
```

6406531559920.

Sub-Section Number : 6

Sub-Section Id : 64065367490

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 12 Question Id : 640653469345 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Short Answer Question

The following pseudocode is executed using a dataset similar to the "Words" dataset, based on the following paragraph.

"This is not what I selected yesterday. There was a design on the left pocket. The color is also different. I clearly remember that the color which I had chosen was slightly dark. I can not believe that the shopkeeper has sent me a different product."

```
count = 0, flag = True
while(Table 1 has more rows){
      Read the first row X in Table 1
      Move X to Table 2
      if(flag){
          if(1st letter of X.Word == 't'){
              if(2nd letter of X.Word == 'h'){
                  count = count + 1
              }
          }
      }
      flag = False
      if(X.Word ends with full stop){
          flag = True
      }
}
```

What would be the value of **count** at the end of the execution of the above pseudocode? Assume that upper case and lower case are ignored during comparison of letters.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

3

Question Number : 13 Question Id : 640653469346 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Short Answer Question

What would be the value of **result** at the end of the execution of the following pseudocode if the value of **n** is 7?

```
i = 1
result1 = 1, result2 = 1, result = 1
while(i < n){
    result1 = result1*i
    result2 = result2*i*(i + 1)
    i = i + 2
}

result = result2/result1
```

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

48

Question Number : 14 Question Id : 640653469347 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Short Answer Question

The following pseudocode is executed using the "Words" dataset.

```
Procedure doSomething(Table T1, Table T2)
    count = 0
    while(Table T1 has more rows){
        Read the first row Y from Table T1
        Read the first row Z from Table T2
        if(Y.Word == Z.Word){
            count = count + 1
        }
        else{
            return(count)
        }
        Move the row Y to Table T11
        Move the row Z to Table T22
    }
    return(count)
End doSomething
```

Let there be two datasets stored in Table 1 and Table 2 corresponding to the following sentences

Table 1:

"if you are honest with your work, the money is just a compliment"

Table 2:

"if you are honest with your work, the progress is just a compliment"

What will **doSomething**(Table 1, Table 2) return? Assume that upper case and lower case are ignored during comparison of words.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

8

Sub-Section Number :	7
Sub-Section Id :	64065367491
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653469348 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (15 to 16)

Question Label : Comprehension

The following pseudocode is executed using the "Scores" dataset. Let variables F, M, F250, and M250 represent the followings:

- F = Number of female students in the dataset
- M = Number of male students in the dataset
- F250 = Number of female students with total marks greater than 250
- M250 = Number of male students with total marks greater than 250

```
A = 0, B = 0
while(Table 1 has more rows){
    Read the first row X from Table 1
    flag = False
    if(X.Gender == 'F'){
        if(X.Total > 250){
            flag = True
        }
    }
    if(not flag){
        A = A + 1
        if(X.Total > 250){
            B = B + 1
        }
    }
    Move X to Table 2
}
```

Based on the above data, answer the given subquestions.

Sub questions

Question Number : 15 Question Id : 640653469349 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

What will be the value of **A** at the end of the execution?

Options :

6406531559924. ✖ F + F250

6406531559925. ✖ F250

6406531559926. ✔ M + (F - F250)

6406531559927. ✖ M + F250

Question Number : 16 Question Id : 640653469350 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

What will be the value of **B** at the end of the execution?

Options :

6406531559928. ✖ M

6406531559929. ✖ F - F250

6406531559930. ✔ M250

6406531559931. ✖ M + (F - F250)

Sem1 English1

Section Id :	64065330304
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	22
Number of Questions to be attempted :	22
Section Marks :	50
Display Number Panel :	Yes