QUIZ -2
PYQ

NEW!

JULY- 2022

- CT - 1
- Statistics
- English -1
- Maths -1

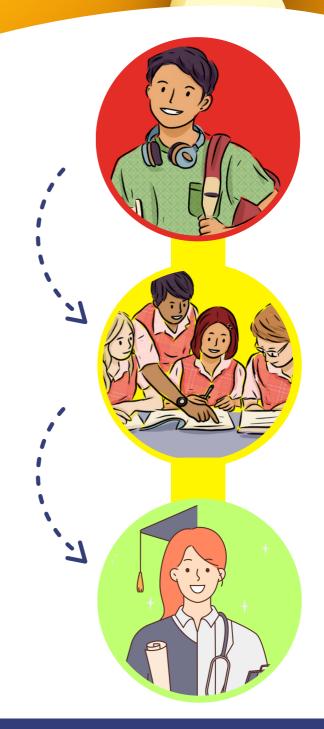# Indian Institute of Technology, Madras - Centre for Continuing Education

Notations :

1.Options shown in green color and with ✔ icon are correct.

2.Options shown in red color and with ✖ icon are incorrect.

Question Paper Name :	IIT M FOUNDATION QUIZ2 EXAM QPB1 10 July 2022
Subject Name :	2022 July: IIT M FOUNDATION QUIZ2 EXAM QPB1
Creation Date :	2022-07-06 19:16:40
Duration :	120
Total Marks :	305
Display Marks:	Yes
Share Answer Key With Delivery Engine :	Yes
Actual Answer Key :	Yes
Calculator :	Scientific
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console?	Yes
Change Font Color :	No

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

Group I

Group Number :	1
Group Id :	6406538800
Group Maximum Duration :	0
Group Minimum Duration :	90
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	305
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

Sem1 CT

Section Id :	64065322076

Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	16
Number of Questions to be attempted :	16
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 :	64065350006
Question Shuffling Allowed :	No

Question Number : 1 Question Id : 640653349861 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 :

6406531161691. ✔ Yes

6406531161692. ✖ No

Question Number : 2 Question Id : 640653349862 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Correct Marks : 0

Question Label : Multiple Choice Question

Scores

SeqNo	Name	Gender	DateOfBirth	CityTown	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

Item List

SV Stores — Srivatsan 1

Item	Category	Qty	Price	Cost
Carrots	Vegetables/Food	1.5	50	75
Soap	Toiletries	4	32	128
Tomatoes	Vegetables/Food	2	40	80
Bananas	Vegetables/Food	8	8	64
Socks	Footwear/Apparel	3	56	168
Curd	Dairy/Food	0.5	32	16
Milk	Dairy/Food	1.5	24	36
				567

Sun General — Vignesh 14

Item	Category	Qty	Price	Cost
Phone Charger	Utilities	1	230	230
Razor Blades	Grooming	1	12	12
Razor	Grooming	1	45	45
Shaving Lotion	Grooming	0.8	180	144
Earphones	Electronics	1	210	210
Pencils	Stationery	3	5	15
				656

Big Bazaar — Sudeep 2

Item	Category	Qty	Price	Cost
Baked Beans	Canned/Food	1	125	125
Chicken Wings	Meat/Food	0.5	600	300
Cocoa powder	Canned/Food	1	160	160
Capsicum	Vegetables/Food	0.8	180	144
Tie	Apparel	2	390	780
Clips	Household	0.5	32	16
				1525

Options :

6406531161693. ✔ Useful Data has been mentioned above.

6406531161694. ✖ This data attachment is just for a reference & not for an evaluation.

Sub-Section Number : 2

Sub-Section Id : 64065350007

Question Shuffling Allowed : Yes

Question Number : 3 Question Id : 640653349863 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Let **D** = { 'a' : {'a': 5, 'b' : 4}, 'b': 1}, then the value of **D**['b'] is 4.

Options :

6406531161695. ✖ TRUE

6406531161696. ✔ FALSE

Question Number : 4 Question Id : 640653349864 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

If 'x' is a key of dictionary **D**, then the value of **D**['x'] can be 'x'.

Options :

6406531161697. ✔ TRUE

6406531161698. ✖ FALSE

Sub-Section Number : 3

Sub-Section Id : 64065350008

Question Shuffling Allowed : Yes

Question Number : 5 Question Id : 640653349865 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

If 'x' and 'y' are the only two keys of dictionary **D** and **L** = **keys(D)** then

Options :

6406531161699. ✖ **L** = ['x', 'y']

6406531161700. ✖ **L** = ['y', 'x']

6406531161701. ✔ **L** = either ['x', 'y'] or ['y', 'x']

Question Number : 6 Question Id : 640653349867 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 **timeList** be a list of pairs containing information about trains associated with a station **stn**. Specifically, each element in this list is a pair: [*Arrival, Departure*] (pair of arrival and departure time). If the arrival or departure time is empty, it is represented as "None". What does **count** represent at the end of the execution of the following pseudocode?

```
1  count = 0
2  foreach x in timeList{
3      if(first(x) != "None" and last(x) != "None"){
4          count = count + 1
5      }
6  }
```

Options :

6406531161706. ✖ Number of trains for which **stn** is a starting station

6406531161707. ✖ Number of trains for which **stn** is an ending station

6406531161708. ✖ Number of trains for which **stn** is either a starting or an ending station

6406531161709. ✔ Number of trains for which **stn** is neither a starting nor an ending station

Sub-Section Number : 4

Sub-Section Id : 64065350009

Question Shuffling Allowed : Yes

Question Number : 7 Question Id : 640653349868 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

A word is said to be "Vowel Rich" if the word has at least three distinct vowels. Let **isRich** be a procedure that takes a row **X** from the "Words" table as input and returns True if the word in row **X** is a Vowel Rich otherwise returns False. Choose the correct code fragment to complete the procedure **isRich** .

```
1  Procedure isRich(X)
2      vDict = {}
3      i = 1, A = ''
4      while(i <= X.LetterCount){
5          A = ith letter in X.Word
6          *************************
7          **  Fill the code    **
8          *************************
9          i = i + 1
10     }
11     if(length(keys(vDict)) >= 3){
12         return(True)
13     }
14     return(False)
15  End isRich
```

Options :

```
1  if(A is a vowel){
2      vDict[A] = True
3  }
```
6406531161710. ✔

```
1  if(A is a vowel){
2      vDict[A] = True
3  }
4  else{
5      vDict[A] = False
6  }
```
6406531161711. ✖

6406531161712. ✖

```
1  if(A is a vowel){
2      vDict[A] = vDict[A] + 1
3  }
```

```
1  if(A is a vowel){
2      vDict[A] = False
3  }
4  else{
5      vDict[A] = True
6  }
```

6406531161713. ✖

Sub-Section Number :	5
Sub-Section Id :	64065350010
Question Shuffling Allowed :	Yes

Question Number : 8 Question Id : 640653349870 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

The following pseudocode is executed using the "Words" dataset. Assume that the rows in Table 1 are arranged in the increasing order of sequence numbers from top to bottom. What will **L** represent at the end of the execution?

```
 1   L = []
 2   A = "None"
 3   Read the first row X in Table 1
 4   A = X.PartOfSpeech
 5   Move X to Table 2
 6   while(Table 1 has more rows){
 7       Read the first row Y in Table 1
 8       if(Y.PartOfSpeech == "Noun"){
 9           if(A == "Adjective"){
10               L = L ++ [Y.Word]
11           }
12       }
13       A = Y.PartOfSpeech
14       Move Y to Table 2
15   }
```

Options :

6406531161718. ✔ List of nouns that appear immediately after an adjective

6406531161719. ✸ List of adjectives that appear immediately after a noun

6406531161720. ✸ List of nouns that appear immediately before an adjective

6406531161721. ✸ List of adjectives that appear immediately before a noun

Question Number : 9 Question Id : 640653349872 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

Two trains are called "Opposite Trains" if they stop at the same set of stations but in the reverse order. **isOpposite(N1, N2)** returns True if trains with train numbers **N1** and **N2** are "Opposite Trains" and False otherwise.

trains is a dictionary with train number as key mapped to a list of stations which that train runs through. For example, **trains** = { 12281: ["Bhubaneswar","Balasore", "Adra", "Varanasi", "Kanpur", "New Delhi"],......}. In this example, the train with train number 12281 starts from Bhubaneswar and reaches New Delhi via Balasore, Adra, Varanasi, and Kanpur in the given order.

Choose the correct code fragment to complete the procedure.

```
1   Procedure isOpposite(N1, N2)
2       L1 = trains[N1]
3       L2 = trains[N2]
4       if(length(L1) != length(L2)){
5           return(False)
6       }
7       *********************
8       * Fill the code     *
9       *********************
10      if(L1 == []){
11          return(True)
12      }
13      else{
14          return(False)
15      }
16
17  End isOpposite
```

Options :

```
1   while(L1 != [] and first(L1) == last(L2)){
2       L1 = rest(L1)
3       L2 = init(L2)
4   }
```

6406531161726. ✔


```
1   while(L2 != [] and first(L2) == last(L1)){
2       L1 = rest(L1)
3       L2 = init(L2)
4   }
```

6406531161727. ✖

6406531161728. ✖

```
1   while(L1 == [] and first(L1) == last(L2)){
2       L1 = rest(L1)
3       L2 = init(L2)
4   }
```

```
1   while(L2 == [] and first(L2) == last(L1)){
2       L1 = rest(L1)
3       L2 = init(L2)
4   }
```

6406531161729. ✖

Question Number : 10 Question Id : 640653349873 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

The given pseudocode is executed using the "Words" dataset. **C** stores the number of nouns which have at least one adjective adjacent to it. Choose the correct code fragment to complete the pseudocode.

```
1    A = [], N = [], C = 0
2    while(Table 1 has more rows){
3        Read the first row X in Table 1
4        if(X.PartOfSpeech == "Adjective"){
5            A = A ++ [X.SeqNo]
6        }
7        if(X.PartOfSpeech == "Noun"){
8            N = N ++ [X.SeqNo]
9        }
10       Move X to Table 2
11   }
12   *********************
13   * Fill the code *
14   *********************
```

Options :

6406531161730. ✔

```
1   foreach Y in N{
2       if(member(A, Y - 1) or member(A, Y + 1)){
3           C = C + 1
4       }
5   }
```

```
1   foreach Y in N{
2       if(member(A, Y - 1) and member(A, Y + 1)){
3           C = C + 1
4       }
5   }
```
6406531161731. ✖

```
1   foreach Y in A{
2       if(member(N, Y - 1) or member(N, Y + 1)){
3           C = C + 1
4       }
5   }
```
6406531161732. ✖

```
1   foreach Y in A{
2       if(member(N, Y - 1) and member(N, Y + 1)){
3           C = C + 1
4       }
5   }
```
6406531161733. ✖

Sub-Section Number :   6

Sub-Section Id :   64065350011

Question Shuffling Allowed :   Yes

Question Number : 11 Question Id : 640653349866 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Multiple Select Question

Let **D** be a dictionary, then which of the following is(are) a valid value(s) of **D**? It is a Multiple Select Question (MSQ).

Options :

6406531161702. ✔ {'x' : {'y' : 3, 'x' : 2}, 'y' : {'x' : 3, 'y' : 4}}

6406531161703. ✖ {'x' : {'y' : 3, 'y' : 2}, 'y' : {'x' : 3, 'x' : 2}}

6406531161704. ✔ {'x' : {'x' : 2}, 'y' : {'y' : 4}}

6406531161705. ✔ {'x' : {3: 'y'}, 'y' : {2 : 'z'}}

Sub-Section Number :	7
Sub-Section Id :	64065350012
Question Shuffling Allowed :	Yes

Question Number : 12 Question Id : 640653349869 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Select Question

The following pseudocode is executed using the "Olympics" dataset. At the end of the execution, **medalDict** stores a dictionary with player's name as key mapped to the list of medal type associated with the player. Assume that every player has a distinct name. 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   medalDict = {}
2   while(Table 1 has more rows){
3       Read the first row X in Table 1
4       if(isKey(medalDict, X.Name)){
5           medalDict[X.Name] = medalDict[X.Name] ++ [X.Medal]
6       }
7       else{
8           medalDict[X.Name] = [X.Medal]
9       }
10      Move X to Table 2
11  }
```

Options :

6406531161714. ✖ Line 1: Incorrect initialization of **medalDict**

6406531161715. ✖ Line 4: Incorrect conditional statement

Line 5: The current statement should be replaced by

```
1   medalDict[X.Name] = medalDict[X.Name] ++ [[X.Medal]]
```

6406531161716. ✖

6406531161717. ✔ No mistakes

Sub-Section Number :   8

Sub-Section Id :   64065350013

Question Shuffling Allowed :   Yes

Question Number : 13 Question Id : 640653349871 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Select Question

Consider the given procedure **isInorder**. Let **Loi** be a list of distinct positive integers. Choose the correct option(s) for which **isInOrder(Loi)** will return True. It is a Multiple Select Question (MSQ) .

```
1   Procedure isInOrder(L1)
2       A = True, L = L1
3       while(length(L) >= 2){
4           if(first(L) < first(rest(L))){
5               A = False
6           }
7           L = rest(L)
8       }
9
10      B = True, L = L1
11      while(length(L) >= 2){
12          if(first(L) > first(rest(L))){
13              B = False
14          }
15          L = rest(L)
16      }
17      return(not A and not B)
18  End isInOrder
```

Options :

6406531161722. ✳ Elements of **Loi** are in ascending order

6406531161723. ✳ Elements of **Loi** are in descending order

6406531161724. ✳ Elements of **Loi** are either in ascending or in descending order

6406531161725. ✔ Elements of **Loi** are neither in ascending nor in descending order

Question Number : 14 Question Id : 640653349874 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Select Question

Let **medalDict** be a dictionary with player's name as a key mapped to the list of medals associated with the player from the "Olympics" dataset. For example **medalDict** = {"xyz" : ["Silver", "Gold", "Gold"], ... }. In this example, the player xyz has won one Silver and two Gold medals.

At the end of the execution, **repeatCount(medalDict)** returns the number of players who have won at least one medal more than one time. But the code 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   procedure repeatCount(medalDict)
2       count = 0
3       foreach player in keys(medalDict){
4           tempDict = {}
5           foreach medal in medalDict[player]{
6               if(iskey(tempDict, medal)){
7                   count = count + 1
8                   exitloop
9               }
10              else{
11                  tempDict[medal] = True
12              }
13          }
14      }
15      return(count)
16  End repeatCount
```

Options :

6406531161734. ✖ Line 2: Incorrect initialization of **count**

6406531161735. ✖ Line 6: Incorrect conditional statement

6406531161736. ✖ Line 11: The current statement should be replaced by `count = 1`

6406531161737. ✔ No mistakes

Sub-Section Number :   9

Sub-Section Id :   64065350014

Question Shuffling Allowed :   No

Question Id : 640653349875 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (15 to 16)

Question Label : Comprehension

Let **Z** be a row in the "Words" table. Use the procedure given below for answering the given subquestions.

```
1   Procedure updateDict(Z, Dict)
2       i = 1, x = ''
3       while(i <= Z.LetterCount){
4           x = ith letter of Z.Word
5           if(not isKey(Dict, x)){
6               Dict[x] = 1
7           }
8           else{
9               Dict[x] = Dict[x] + 1
10          }
11          i = i + 1
12      }
13      return(Dict)
14  End updateDict
```

Sub questions

Question Number : 15 Question Id : 640653349876 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Short Answer Question

Let **Z.**_Word_ be "honesty". What will be the value of **alphaDict**['e'] at the end of the execution of the following pseudocode using the procedure mentioned in the main question?

```
1   alphaDict = {'t':2, 'c':1, 'e':1}
2   alphaDict = updateDict(Z, alphaDict)
```

NOTE: Enter your answer to the nearest integer.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

2

Question Number : 16 Question Id : 640653349877 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 "Words" dataset and the procedure **updateDict** mentioned in the main data.

```
1  D = {}
2  while(Table 1 has more rows){
3      Read the first row X in Table 1
4      D = updateDict(X, D)
5      Move X to Table 2
6  }
```

At the end of the execution of above pseudocode, let 'a' be a letter from the "Words" dataset, then **D**['a'] will be

Options :

6406531161739. ✔ The frequency count of 'a' in the dataset.

6406531161740. ✖ Number of words in which 'a' is present.

6406531161741. ✖ Number of sentences in which 'a' is present.

6406531161742. ✖ List of words in which 'a' is present.

Sub-Section Number :   10

Sub-Section Id :   64065350015

Question Shuffling Allowed :   No

Question Id : 640653349878 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (17 to 19)

Question Label : Comprehension

The following pseudocode is executed using the "Scores" dataset. At the end of the execution, **medalList** should store the list of sequence numbers of the students who have scored at least 200 total marks and have scored more than 80 at least in two subjects. Answer the given subquestions based on the pseudocode.

```
1   medalList = [], A = False, sCount = 0
2   while(Table 1 has more rows){
3       Read the first row X in Table 1
4       A = s200[X.SeqNo]
5       sCount = nSub(X.SeqNo)
6       if(A and sCount >= 2){
7           medalList = medalList ++ [X.SeqNo]
8       }
9       Move X to Table 2
10  }
```

Sub questions

Question Number : 17 Question Id : 640653349879 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Select Question

Which of the following statement(s) is(are) true about **s200** based on the given pseudocode? It is a Multiple Select Question (MSQ).

Options :

6406531161743. ✳ **s200** is a procedure which accepts the sequence number of a student and returns True if the student has scored at least 200 total marks otherwise returns False.

6406531161744. ✔ **s200** is a dictionary with sequence numbers of students mapped to True if the student has scored at least 200 total marks otherwise mapped to False.

6406531161745. ✳ **s200** is a dictionary with sequence numbers of students mapped to False if the student has scored at least 200 total marks otherwise mapped to True.

6406531161746. ✳ **s200** is a procedure which accepts the sequence number of a student and returns False if the student has scored at least 200 total marks otherwise returns True.

Question Number : 18 Question Id : 640653349880 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Select Question

Which of the following statement(s) is(are) true about **nSub** based on the given pseudocode? It is a Multiple Select Question (MSQ).

Options :

6406531161747. ✳ **nSub** is a procedure which accepts the sequence number of a student and returns True if the student has scored more than 80 marks at least in two subjects otherwise returns False.

6406531161748. ✔ **nSub** is a procedure which accepts the sequence number of a student and returns the number of subjects in which the student has scored more than 80 marks.

6406531161749. ✳ **nSub** is a dictionary with sequence numbers of students mapped to the number of subjects in which the student has scored more than 80 marks.

6406531161750. ✳ **nSub** is a procedure which accepts the sequence number of a student and returns False if the student has scored more than 80 marks at least in two subjects otherwise returns True.

Question Number : 19 Question Id : 640653349881 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

Let **M, P,** and **C** be the lists of the sequence numbers of the students who have scored more than 80 marks in Mathematics, Physics, and Chemistry respectively. If **n** is the sequence number of a student then choose the correct implementation of **nSub**?

Options :

```
1   Procedure nSub(n)
2       count = 0
3       if(member(M, n)){
4           count = count + 1
5       }
6       if(member(P, n)){
7           count = count + 1
8       }
9       if(member(C, n)){
10          count = count + 1
11      }
12      return(count)
13  End nSub
```

6406531161751. ✔

```
1   Procedure nSub(n)
2       count = 0
3       if(member(M, n)){
4           count = count + 1
5       }
6       if(member(P, n)){
7           count = count + 1
8       }
9       if(member(C, n)){
10          count = count + 1
11      }
12      if(count >= 2){
13          return(True)
14      }
15      return(False)
16  End nSub
```

6406531161752. ✖

6406531161753. ✖

```
1   nSub = {}
2   while(Table 1 has more rows){
3       Read the first row X from Table 1
4       count = 0
5       if(member(M, X.SeqNo)){
6           count = count + 1
7       }
8       if(member(P, X.SeqNo)){
9           count = count + 1
10      }
11      if(member(C, X.SeqNo)){
12          count = count + 1
13      }
14      if(count >= 2){
15          nSub[SeqNo] = True
16      }
17      Move X to Table 2
18  }
```

```
1   nSub = {}
2   while(Table 1 has more rows){
3       Read the first row X from Table 1
4       count = 0
5       if(member(M, X.SeqNo)){
6           count = count + 1
7       }
8       if(member(P, X.SeqNo)){
9           count = count + 1
10      }
11      if(member(C, X.SeqNo)){
12          count = count + 1
13      }
14      nSub[X.SeqNo] = count
15      Move X to Table 2
16  }
```

6406531161754. ✖

Sem1 English1

Section Id :   64065322077

Section Number :   2

Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	32
Number of Questions to be attempted :	32
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 :	64065350016
Question Shuffling Allowed :	No

Question Number : 20 Question Id : 640653349882 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: ENGLISH 1"

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 :

6406531161755. ✔ Yes

6406531161756. ✖ No

Sub-Section Number :	2
Sub-Section Id :	64065350017
Question Shuffling Allowed :	No

Question Numbers : (21 to 30)

Question Label : Comprehension

Read the following passage and answer the given subquestions:

I was nine years old, sitting stiffly at the dining table in my blue-and-white school uniform, and across from me sat my mother, who had come home from work at the university registry, elegant in her swishy skirt, smelling of Poison perfume and saying she wanted to watch me eat. I still do not know who told her that I was skipping lunch before school. Perhaps it was the houseboy, Fide. Perhaps it was my little brother Kenechukwu, who went to school in the morning and came home just before I left. The firm set of her mouth told me that I had no choice but to eat the *garri* and soup placed on the table. I made the sign of the cross. I plucked a morsel from the soft lump of *garri*. I lightly moulded it with my fingers. I dipped it into the soup. I swallowed. My throat itched. I disliked all the variants of this quintessential Nigerian food, whether made from corn, cassava, or yams, whether cooked or stirred or pounded in a mortar until they became a soft mash. It was jokingly called "swallow," because one swallowed the morsels without chewing; it was easy to tell that a person chewing *garri* was a foreigner.

"Hurry up," my mother said. "You will be late for school." We had *garri* for lunch every day except Sunday, when we had rice and stew and sometimes a lush salad that contained everything from baked beans to boiled eggs and was served with dollops of creamy dressing. The soups gave some variety to lunch: the yellowish *egusi*, made of ground melon seeds and vegetables; *onugbu*, rich with dark-green bitterleaf; *okro*, with its sticky sauce; *nsala*, with beef chunks floating in a thin herb-filled broth. I disliked them all.

That afternoon, it was *egusi* soup. My mother's eyes were steady behind her glasses. "Are you playing with that food or eating it?" she asked. I said I was eating. Finally, I finished and said, "Mummy, thank you," as all well-brought-up Igbo children were supposed to after a meal. I had just stepped outside the carpeted dining area and onto the polished concrete floor of the passage when my stomach churned and recoiled and the *garri* and soup rushed up my throat.

—Chimamanda Ngozi Adichie, *Real Food*

Sub questions

Question Number : 21 Question Id : 640653349884 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

What does the word _morsel_ mean?

Options :

6406531161757. ✔ A small amount of food

6406531161758. ✖ A large amount of food

6406531161759. ✖ A spoonful of liquid food

6406531161760. ✖ A chunk of meat

Question Number : 22 Question Id : 640653349885 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

What is the name of the houseboy the author refers to?

Options :

6406531161761. ✖ Kenechukwu

6406531161762. ✔ Fide

6406531161763. ✖ Egusi

6406531161764. ✖ Garri

Question Number : 23 Question Id : 640653349886 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

Which of the following is the non-foreign way of eating *garri*, according to the author?

Options :

6406531161765. ✳ Chewing it

6406531161766. ✳ Drinking it

6406531161767. ✔ Swallowing it

6406531161768. ✳ Snacking on it

Question Number : 24 Question Id : 640653349887 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Multiple Select Question

From the passage, what can you infer about the author's mother?

Options :

6406531161769. ✳ She is 45 years old.

6406531161770. ✔ She is Nigerian.

6406531161771. ✔ She works at a university.

6406531161772. ✳ She watches her daughter eat food every day.

6406531161773. ✳ She cooks *garri* every day.

Question Number : 25 Question Id : 640653349888 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

What is the meaning of the word "*quintessential*"?

Options :

6406531161774. ✳ Something that is unavoidable

6406531161775. ✔ Representing the most typical example of something

6406531161776. ✳ Something that is needed on an immediate basis

6406531161777. ✳ Representing something that is long-lasting

Question Number : 26 Question Id : 640653349889 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

Garri can be cooked using which of the following base ingredients?

Options :

6406531161778. ✹ Corn, rice, or tapioca

6406531161779. ✹ Vegetables, yam, or rice

6406531161780. ✹ Corn, wheat, or cassava

6406531161781. ✔ Corn, cassava, or yam

Question Number : 27 Question Id : 640653349890 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

From the passage, what can you infer about what happened next to the narrator/protagonist?

Options :

6406531161782. ✹ She broke down into tears because she didn't want to have garri.

6406531161783. ✔ She threw up the food she had taken.

6406531161784. ✹ She silently cursed her fate and went to school.

6406531161785. ✹ She came back to confront her mother in an argument.

Question Number : 28 Question Id : 640653349891 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

A Sunday lunch at the author's house would consist of:

Options :

6406531161786. ✱ Garri, a soup, and a salad

6406531161787. ✱ Rice and stew, and a salad

6406531161788. ✱ Garri, egusi, and a salad

6406531161789. ✔ Rice and stew, a salad, and soup

Question Number : 29 Question Id : 640653349892 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

What was the after-meal custom supposed to be followed by all well-brought-up Igbo children?

Options :

6406531161790. ✔ Thank their mother

6406531161791. ✱ Run and play

6406531161792. ✱ Throw up

6406531161793. ✱ Sleep and dream

Question Number : 30 Question Id : 640653349893 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

In this passage, '*swallow*' indicates a bird.

Options :

6406531161794. ✱ TRUE

6406531161795. ✔ FALSE

Sub-Section Number :	3
Sub-Section Id :	64065350018
Question Shuffling Allowed :	Yes

Question Number : 31 Question Id : 640653349894 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

John and Christina _____ getting married tomorrow.

Options :

6406531161796. ✱ Is

6406531161797. ✔ Are

Question Number : 32 Question Id : 640653349895 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Context: A boy to his father after school.

"*Can we go eat dinner outside, please?*". This is a_____.

Options :

6406531161798. ✱ Command

6406531161799. ✔ Request

Question Number : 33 Question Id : 640653349896 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

'*He was very proud of himself.*' The predicate is _____.

Options :

6406531161800. ✔ Was very proud of himself

6406531161801. ✱ Proud of himself

Question Number : 34 Question Id : 640653349897 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

'We had a lovely time'. 'A lovely time' is a _____.

Options :

6406531161802. ✔ Noun phrase

6406531161803. ✖ Prepositional Phrase

Question Number : 35 Question Id : 640653349898 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Context: A company's board of directors to a junior level employee.

'Send us the e-mail by tomorrow'. This is a _____.

Options :

6406531161804. ✔ Command

6406531161805. ✖ Request

Question Number : 36 Question Id : 640653349899 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Surya's radio show and Jyothika's podcast ____ a lot of local music.

Options :

6406531161806. ✔ Feature

6406531161807. ✖ Features

Question Number : 37 Question Id : 640653349900 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Which of the following is not apparent in agreement in English?

Options :

6406531161808. ✲ Number

6406531161809. ✲ Person

6406531161810. ✔ Gender

6406531161811. ✲ All of these

Question Number : 38 Question Id : 640653349901 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Amartya Sen is ____ economist from India.

Options :

6406531161812. ✲ A

6406531161813. ✔ An

6406531161814. ✲ The

Question Number : 39 Question Id : 640653349902 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Our mayor, just like most other politicians, never _____ when to keep quiet.

Options :

6406531161815. ✳ Know

6406531161816. ✔ Knows

Question Number : 40 Question Id : 640653349903 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

More than fifty guests _____ expected.

Options :

6406531161817. ✳ Is

6406531161818. ✔ Are

Question Number : 41 Question Id : 640653349905 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

A direct object answers questions of ___.

Options :

6406531161823. ✳ What and where?

6406531161824. ✳ How and why?

6406531161825. ✳ When and whom?

6406531161826. ✔ What and whom?

Question Number : 42 Question Id : 640653349906 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

'Leela, along with her brothers, rides a cycle.' Is this sentence correct?

Options :

6406531161827. ✔ The given sentence is correct.

6406531161828. ✖ No, the given sentence is wrong. The correct sentence is: Leela, along with her brothers, ride a cycle.

Question Number : 43 Question Id : 640653349907 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

'I've been trying to come up with a fresh idea, but so far I've only drawn a blank.' What does 'to draw a blank' mean?

Options :

6406531161829. ✔ To be unsuccessful

6406531161830. ✖ To be stupid

6406531161831. ✖ To be empty

6406531161832. ✖ To be creative

Question Number : 44 Question Id : 640653349908 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

'*You are entering a restricted zone*'.

Options :

6406531161833. ✔ Tense marker is 'are'

6406531161834. ✖ Tense marker is contained in 'entering'

6406531161835. ✖ Tense marker is 'are entering'

Question Number : 45 Question Id : 640653349909 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

'I manage to travel for pleasure once in a blue moon.' What does *"once in a blue moon"* mean?

Options :

6406531161836. ✳ Once a month, when there is full moon

6406531161837. ✳ Twice a month, when there is no moon and when there is a full moon

6406531161838. ✔ Very rarely

6406531161839. ✳ Never

Question Number : 46 Question Id : 640653349910 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Geeta is _____ by writing just a single university entrance exam.

Options :

6406531161840. ✳ Barking up the wrong tree

6406531161841. ✳ Taking the bull by the horns

6406531161842. ✳ Breaking the ice

6406531161843. ✔ Putting all her eggs in one basket

Question Number : 47 Question Id : 640653349911 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

You have been trying to reduce your weight, but have been unsuccessful so far. Now you are

_____.

Options :

6406531161844. ✳ Out of loop

6406531161845. ✔ Out of shape

6406531161846. ✳ Out of touch

6406531161847. ✳ Out of mind

Question Number : 48 Question Id : 640653349912 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Reema is living within her budget. She is_____.

Options :

6406531161848. ✳ Pulling herself together

6406531161849. ✳ Getting a taste of her own medicine

6406531161850. ✳ Between the devil and the deep sea

6406531161851. ✔ Cutting her coat according to her cloth

Question Number : 49 Question Id : 640653349913 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

In the words '*glee*' and '*meat*'

Options :

6406531161852. ✳ Glee begins with a voiced consonant, meat begins with a voiceless consonant

6406531161853. ✔ Both begin with voiced consonants

6406531161854. ✳ Both begin with voiceless consonants

6406531161855. ✳ Glee begins with a voiceless consonant, meat begins with a voiced consonant

Question Number : 50 Question Id : 640653349914 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Out of shape, out of the loop, and *out of touch* all mean the same thing.

Options :

6406531161856. ✳ TRUE

6406531161857. ✔ FALSE

Question Number : 51 Question Id : 640653349915 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Identify whether the vowel sound (in bold) in the following word is short or long.

Pl**ea**sure

Options :

6406531161858. ✔ Short

6406531161859. ✳ Long

Question Number : 52 Question Id : 640653349916 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Identify whether the vowel sound (in bold) in the following word is monophthong or diphthong.

T**ou**ch

Options :

6406531161860. ✔ Monophthong

6406531161861. ✖ Diphthong

Question Number : 53 Question Id : 640653349917 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Which of the following is NOT a voiced sound?

Options :

6406531161862. ✖ /m/

6406531161863. ✖ /n/

6406531161864. ✖ /z/

6406531161865. ✔ /k/

Question Number : 54 Question Id : 640653349918 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Identify whether the consonant sound (in bold) in the following word is voiced or voiceless:

Lo**g**s

Options :

6406531161866. ✖ Voiceless

6406531161867. ✔ Voiced

Question Number : 55 Question Id : 640653349919 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Identify the number of consonant sounds in the following word:

Number

Options :

6406531161868. � 2

6406531161869. ✓ 3

6406531161870. � 4

6406531161871. � 5

Question Number : 56 Question Id : 640653349920 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Choose the word with correctly marked stress from the following

Participation

Options :

6406531161872. � 'Participation

6406531161873. � Par'ticipation

6406531161874. � Participa'tion

6406531161875. ✓ Partici'pation

Question Number : 57 Question Id : 640653349921 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Identify the stressed syllable in the following word:

Identity

Options :

6406531161876. � First syllable

6406531161877. ✔ Second syllable

6406531161878. ✖ Third syllable

6406531161879. ✖ Fourth syllable

Question Number : 58 Question Id : 640653349922 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Identify the number of syllables in the following word:

Reimbursement

Options :

6406531161880. ✖ 3

6406531161881. ✖ 2

6406531161882. ✖ 5

6406531161883. ✔ 4

Question Number : 59 Question Id : 640653349923 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

Choose the word with correctly marked syllable stress:

Extend

Options :

6406531161884. ✖ E'xtend

6406531161885. ✖ 'Extend

6406531161886. ✔ Ex'tend

6406531161887. ✖ Ext'end

Sub-Section Number :   4

Sub-Section Id :   64065350019

Question Number : 60 Question Id : 640653349904 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Select Question

"*I'm quite tired now, shall we call it a day?*" Which of the following most closely resembles (in meaning) the underlined phrase?

Options :

6406531161819. ✔ To wrap up

6406531161820. ✔ To stop doing whatever one has been doing

6406531161821. ✖ To start a new task

6406531161822. ✔ To wind down and go home

Sem1 Maths1

Section Id :	64065322078
Section Number :	3
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	12
Number of Questions to be attempted :	12
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 : 64065350020

Question Shuffling Allowed : No

Question Number : 61 Question Id : 640653349924 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: MATHEMATICS FOR DATA SCIENCE 1"

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 :

6406531161888. ✔ Yes

6406531161889. ✖ No

Question Number : 62 Question Id : 640653349925 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

Instructions:

- There are some questions which have functions with discrete valued domains (such as day, month, year etc). For simplicity, we treat them as continuous functions.

- For NAT type question, enter only one right answer even if you get multiple answers for that particular question.

- Notations:
  - $\mathbb{R}$= Set of real numbers
  - $\mathbb{Q}$= Set of rational numbers
  - $\mathbb{Z}$= Set of integers
  - $\mathbb{N}$= Set of natural numbers

Options :

6406531161890. ✔ Useful Data has been mentioned above

6406531161891. ✖ This data attachment is just for a reference & not for an evaluation.

Sub-Section Number :   2

Sub-Section Id :   64065350021

Question Shuffling Allowed :   Yes

Question Number : 63 Question Id : 640653349927 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5

Question Label : Multiple Select Question

Let $f(x) = e^{a(x^2 - 7x + 6)}$, $a \in \mathbb{R}$ then choose the set of correct options.

Options :

6406531161893. ✔ $f(x)$ will be positive for $x \in (-10, 5)$ if $a > 0$.

6406531161894. ✔ $f(x)$ will be positive for $x \in (5, 10)$ if $a < 0$.

6406531161895. ✖ $f(x)$ is a one-to-one (injective) function.

6406531161896. ✖ If $a = 1$, then $f(x)$ will have two X-intercepts.

Sub-Section Number :   3

Sub-Section Id :   64065350022

Question Shuffling Allowed :   Yes

Question Number : 64 Question Id : 640653349931 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 6

Question Label : Multiple Select Question

Choose the correct options from the following.

Options :

6406531161903. ✔ There exist two convergent sequences $\{a_n\}$ and $\{b_n\}$ which converge to two different non-zero real numbers, but $\{a_n + b_n\}$ converges to 0.

6406531161904. ✖ The sequence $a_n = \begin{cases} \dfrac{1}{n} & \text{if } n \text{ is odd} \\ 1 & \text{if } n \text{ is even} \end{cases}$ is convergent.

6406531161905. ✖ A sequence $\{a_n\}$ which is not increasing cannot have an increasing subsequence

6406531161906. ✔ The sequence $a_n = n$ has no convergent subsequence.

Sub-Section Number : 4

Sub-Section Id : 64065350023

Question Shuffling Allowed : Yes

Question Number : 65 Question Id : 640653349928 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 7

Question Label : Multiple Select Question

Choose the correct options from the following.

Options :

6406531161897. ✔ There is no asymptote for the function $\log (x^2 - x + 5)$

6406531161898. ✔ $f(x) = \dfrac{1}{x^2 + 2}$ is a bounded function.

6406531161899. ✖ The inverse of $f(x) = x^2 - 4$ is $g(x) = \pm\sqrt{(x + 4)}$

6406531161900. ✔

The domain of the function $f(x) = \frac{3}{9-x^2} + \log(x^3 - x)$ is $(-1, 0) \cup (1, 3) \cup (3, \infty)$.

Question Number : 66 Question Id : 640653349934 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 7

Question Label : Multiple Select Question

Choose the set of correct options.

Options :

6406531161909. ✖ The derivative of the function $f(x) = \sin(2\cos 3x)$ is $f'(x) = 6\sin(3x)\cos(2\cos 3x)$.

6406531161910. ✔ If $h(x) = x^2 + \sin(\pi x) + e^x$ is the derivative of the function f then the value of $\lim_{m \to 0} \frac{f(2+m) - f(2)}{m}$ is $4 + e^2$.

6406531161911. ✔ The function $f(x) = \frac{x}{e^x}$ is differentiable on $\mathbb{R}$.

6406531161912. ✖ If product of two functions f and g is differentiable, then both f and g are differentiable.

Sub-Section Number :	5
Sub-Section Id :	64065350024
Question Shuffling Allowed :	Yes

Question Number : 67 Question Id : 640653349930 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Short Answer Question

Consider two sequences $a_n = \dfrac{100n^2 + n - 10}{n^2 - 2n - 1}$ and $b_n = \dfrac{\sin(n)}{n}$. Find the limit of the sequence $\log_{10}(a_n) + \dfrac{a_n}{10} - 7b_n$.

NOTE: Enter a numeric value.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

12

Question Number : 68 Question Id : 640653349935 Question Type : SA Calculator : None

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

Correct Marks : 3

Question Label : Short Answer Question

Let f be a differentiable function such that $f'(3) = 2$ and $f(3) = -7$. If $y = ax + b$ denotes the tangent of the function f at $x = 3$, then find the value of $a + b$.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

-11

Sub-Section Number :   6

Sub-Section Id :   64065350025

Question Shuffling Allowed :   Yes

Question Number : 69 Question Id : 640653349926 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

On an average, a video lecture in our online degree course has 200 views on the same day that it is posted. It is verified that the total number of views increases exponentially according to the function $y = 200 \times 5^{0.15t}$, where t represents the number of days since the video was posted ($t = 0$ on the day of posting the video). How many days does it take for 25000 people to view the video?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

20

Sub-Section Number :	7
Sub-Section Id :	64065350026
Question Shuffling Allowed :	Yes

Question Number : 70 Question Id : 640653349929 Question Type : SA Calculator : None

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

Correct Marks : 5

Question Label : Short Answer Question

If a is the number of solutions of the equation $x^{\left(\frac{3}{4}(\log_2 x)^2 + \log_2 x - \frac{5}{4}\right)} = \sqrt{2}$, then the value of a is

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

3

Question Number : 71 Question Id : 640653349932 Question Type : SA Calculator : None

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

Correct Marks : 5

Question Label : Short Answer Question

Consider the function

$$f(x) = \begin{cases} \dfrac{3x}{(x+2)^2} & x \le -1 \\ 2x - 5 & -1 < x \le 1 \\ \dfrac{-8}{x+1} & x > 1. \end{cases}$$

Find the total number of points in $(-2, \infty)$ at which $f(x)$ is not continuous.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

2

Question Number : 72 Question Id : 640653349933 Question Type : SA Calculator : None

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

Correct Marks : 5

Question Label : Short Answer Question

Consider a function defined as,

$$f(x) = \begin{cases} x^3 + 5x + 1 & x \le 0 \\ m\sin(x) + n\cos(x) & x > 0. \end{cases}$$

If f is differentiable at $x = 0$, then the value of $m + n$ is

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

6

Sem1 Statistics1

Section Id :	64065322079
Section Number :	4
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	11
Number of Questions to be attempted :	11
Section Marks :	40
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 :	64065350027
Question Shuffling Allowed :	No

Question Number : 73 Question Id : 640653349936 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

Options :

6406531161914. ✔ Yes

6406531161915. ✖ No

Sub-Section Number :   2

Sub-Section Id :   64065350028

Question Shuffling Allowed :   Yes

Question Number : 74 Question Id : 640653349937 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

Ram has to choose a t-shirt for his outfit from a collection of 6 yellow t-shirts, 2 black t-shirts and 4 blue t-shirts. If a t-shirt is chosen randomly, then what is the chance that a black or a blue t-shirt is chosen by Ram for his outfit ?

Options :

6406531161916. ✖ $\dfrac{1}{6}$

6406531161917. ✔ $\dfrac{1}{2}$

6406531161918. ✖ $\dfrac{1}{3}$

6406531161919. ✖ $\dfrac{2}{3}$

Question Number : 75 Question Id : 640653349953 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

Mean and population variance of the dataset $x_1, x_2, ..., x_{10}$ are 19 and 49 respectively. If the value of $\sum_{i=6}^{10} x_i^2$ is 1900, then what is the value of $\sum_{i=1}^{5} x_i^2$?

Options :

6406531161958. ✸ 4100

6406531161959. ✸ 1900

6406531161960. ✸ 1759

6406531161961. ✔ 2200

Question Number : 76 Question Id : 640653349955 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

A fair die is thrown twice independently. What is the probability of getting two numbers whose product is odd?

Options :

6406531161966. ✸ $\dfrac{3}{4}$

6406531161967. ✸ $\dfrac{1}{2}$

6406531161968. ✔ $\dfrac{1}{4}$

6406531161969. ✸ $\dfrac{2}{9}$

Sub-Section Number :   3

Sub-Section Id :   64065350029

Question Shuffling Allowed :   No

Question Id : 640653349938 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (77 to 78)

Question Label : Comprehension

In a hospital, 40% of the patients are male. It is known that 15% of male patients are suffering from cancer and 10% of female patients are suffering from cancer. If a patient is selected randomly, then based on the given information, answer the subquestions.

Sub questions

Question Number : 77 Question Id : 640653349939 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Short Answer Question

What is the probability that the selected patient is suffering from cancer? (Enter the answer correct to 2 decimal accuracy)

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.09 to 0.15

Question Number : 78 Question Id : 640653349940 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

If the selected patient is suffering from cancer, then what is the probability that the patient is a female? (Enter the answer correct to 2 decimal accuracy)

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.47 to 0.53

Sub-Section Number :	4
Sub-Section Id :	64065350030
Question Shuffling Allowed :	No

Question Id : 640653349941 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (79 to 80)

Question Label : Comprehension

Answer the given subquestions.

Sub questions

Question Number : 79 Question Id : 640653349942 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Short Answer Question

A boy went to a bakery shop to purchase chocolates. If there are 5 dark chocolates and 3 milk chocolates, of which two are to be purchased by him, then in how many ways can it be done such that both of the purchased ones are either dark chocolate or the milk chocolate?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

13

Question Number : 80 Question Id : 640653349943 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0

Question Label : Multiple Select Question

Select the steps from the following options, that you will use for the selection of chocolates to be purchased.

Note: This question is optional. We will check your answer to this question if you make a mistake in the previous one.

Options :

6406531161923. ✔ Selection of chocolates will occur simultaneously.

6406531161924. ✖ Selection of chocolates will not occur simultaneously.

6406531161925. ✖ With replacement.

6406531161926. ✔ Without replacement.

6406531161927. ✖ Order matters.

6406531161928. ✔ Order does not matter.

6406531161929. ✖ Permutation is used.

6406531161930. ✔ Combination is used.

Sub-Section Number :	5
Sub-Section Id :	64065350031
Question Shuffling Allowed :	No

Question Id : 640653349944 Question Type : COMPREHENSION Sub Question Shuffling

Question Numbers : (81 to 82)

Question Label : Comprehension

Answer the given subquestions.

Sub questions

Question Number : 81 Question Id : 640653349945 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

How many numbers can be formed using the digits 0, 1, 3, 5, 7, 9 (without repetition), such that the number formed is greater than 20,000?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1080

Question Number : 82 Question Id : 640653349946 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0

Question Label : Multiple Select Question

Select the steps from the following options, that you will use to form the numbers greater than 20,000 using the given digits.

Note: This question is optional. We will check your answer to this question if you make a mistake in the previous one.

Options :

6406531161932. ✔ Selection of digits will occur simultaneously.

6406531161933. ✘ Selection of digits will not occur simultaneously

6406531161934. ✘ With replacement.

6406531161935. ✔ Without replacement.

6406531161936. ✔ Order matters.

6406531161937. ✘ Order does not matter.

6406531161938. ✔ Permutation is used.

6406531161939. ✘ Combination is used.

Question Id : 640653349947 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (83 to 84)

Question Label : Comprehension

Answer the given subquestions.

Sub questions

Question Number : 83 Question Id : 640653349948 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

In a school, there are 3 students in section-*A*, 4 students in section-*B* and 5 students in section-*C*. Find the number of ways, in which 8 students can be selected such that it include at least 2 students from each section and at most 5 students from the total 7 students in section-*A* and *B*.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

Question Number : 84 Question Id : 640653349949 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0

Question Label : Multiple Select Question

Select the steps from the following options, that you will use for selection of students from the given three sections.

Note: This question is optional. We will check your answer to this question if you make a mistake in the previous one.

Options :

6406531161941. ✔ Selection of students will occur simultaneously

6406531161942. ✖ Selection of students will not occur simultaneously.

6406531161943. ✖ With replacement.

6406531161944. ✔ Without replacement.

6406531161945. ✖ Order matters.

6406531161946. ✔ Order does not matter.

6406531161947. ✖ Permutation is used.

6406531161948. ✔ Combination is used.

Sub-Section Number :	6
Sub-Section Id :	64065350032
Question Shuffling Allowed :	No

Question Id : 640653349950 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (85 to 86)

Question Label : Comprehension

Answer the given subquestions.

Sub questions

Question Number : 85 Question Id : 640653349951 Question Type : SA Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5

Question Label : Short Answer Question

In how many ways a necklace of 6 beads can be formed using 8 beads of different colour?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

1680

Question Number : 86 Question Id : 640653349952 Question Type : MSQ Is Question
Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction
Time : 0

Correct Marks : 0

Question Label : Multiple Select Question

Select the steps from the following options, that you will use to form a necklace after choosing 6 beads from 8 beads.

Note: This question is optional. We will check your answer to this question if you make a mistake in the previous one.

Options :

6406531161950. ✔ Selection of beads will occur simultaneously.

6406531161951. ✖ Selection of beads will not occur simultaneously.

6406531161952. ✖ With replacement.

6406531161953. ✔ Without replacement.

6406531161954. ✔ Order matters.

6406531161955. ✸ Order does not matter.

6406531161956. ✔ Permutation is used.

6406531161957. ✸ Combination is used.

Sub-Section Number :   7

Sub-Section Id :   64065350033

Question Shuffling Allowed :   Yes

Question Number : 87 Question Id : 640653349954 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

If an analyst wants to categorize the satisfaction level of a ride as "not happy, happy, very happy" which is serviced by a transport company, then which scale of measurement is suitable for the satisfaction level?

Options :

6406531161962. ✸ Nominal

6406531161963. ✔ Ordinal

6406531161964. ✸ Interval

6406531161965. ✸ None

Sub-Section Number :   8

Sub-Section Id :   64065350034

Question Shuffling Allowed :   Yes

Question Number : 88 Question Id : 640653349956 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Select Question

Which of the following statements is/are incorrect?

Options :

6406531161970. ✔ Number of road accidents in a month is a numeric and continuous variable.

6406531161971. ✖ Age of a student (in years) in a class is a numeric and continuous variable.

6406531161972. ✖ Number of languages spoken by an individual is a numeric and discrete variable.

6406531161973. ✔ Speed of a car is a numeric and discrete variable.

Sem2 English2

Section Id :	64065322080
Section Number :	5
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	33
Number of Questions to be attempted :	33
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 :	64065350035
Question Shuffling Allowed :	No

Question Number : 89 Question Id : 640653349957 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