

**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 AN2 EXAM QDF2 25 Feb  
2024

**Subject Name :**

2024 Feb25: IIT M AN2 EXAM QDF2

**Creation Date :**

2024-02-16 12:56:26

**Duration :**

120

**Total Marks :**

355

**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

<b>Help Button :</b>	No
<b>Show Reports :</b>	No
<b>Show Progress Bar :</b>	No

## **Group I**

<b>Group Number :</b>	1
<b>Group Id :</b>	64065316964
<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	90
<b>Show Attended Group? :</b>	No
<b>Edit Attended Group? :</b>	No
<b>Break time :</b>	0
<b>Group Marks :</b>	355
<b>Is this Group for Examiner? :</b>	No
<b>Examiner permission :</b>	Cant View
<b>Show Progress Bar? :</b>	No
<b>Revisit allowed for group Instructions? :</b>	Yes
<b>Maximum Instruction Time :</b>	0
<b>Minimum Instruction Time :</b>	0
<b>Group Time In :</b>	Minutes
<b>Navigate To Group Summary From Last Question? :</b>	No
<b>Disable Submit Button During Assessment? :</b>	No
<b>Section Selection Time? :</b>	0
<b>No of Optional sections to be attempted :</b>	0

## **Sem1 CT**

<b>Section Id :</b>	64065351394
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<b>Section Number :</b>	1
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	16
<b>Number of Questions to be attempted :</b>	16
<b>Section Marks :</b>	50
<b>Display Number Panel :</b>	Yes
<b>Section Negative Marks :</b>	0
<b>Group All Questions :</b>	No
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Maximum Instruction Time :</b>	0
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	640653107912
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Number : 1 Question Id : 640653738116 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 I: COMPUTATIONAL THINKING \(COMPUTER BASED EXAM\)](#)"**

**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 :**

6406532470040. ✓ YES

6406532470041. ✗ NO

**Question Number : 2 Question Id : 640653738117 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
					■ ■ ■			

## Words

SeqNo	Word	PartOfSpeech	LetterCount
0	It	Pronoun	2
			■ ■ ■

## Library

SeqNo	Name	Author	Genre	Language	Pages	Publisher	Year
0	Igniting Minds	Kalam	Nonfiction	English	178	Penguin	2002
					■ ■ ■		

# 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 :

6406532470042. ✓ Useful Data has been mentioned above.

6406532470043. ❌ This data attachment is just for a reference & not for an evaluation.

Sub-Section Number : 2

Sub-Section Id : 640653107913

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 3 Question Id : 640653738118 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. What will **B** represent at the end of execution?

```
1 A = 0
2 count = 0
3 while(Table 1 has more rows){
4     Read the first row X in Table 1
5     count = count + 1
6     if(X.Author != "Kalam" and X.Language != "English"){
7         A = A + 1
8     }
9     Move X to Table 2
10 }
11 B = count - A
```

Options :

6406532470044. ✘ Number of books written by author Kalam in English

6406532470045. ✘ Number of books not written by author Kalam in English

6406532470046. ✘ Number of English books written by authors other than Kalam

6406532470047. ✓ Number of books that are written by author Kalam or in English or both

**Question Number : 4 Question Id : 640653738119 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. At the end of the execution of below pseudocode, if **count2** represents the number of male students whose Physics marks are less than or equal to Mathematics marks, then select the correct code fragment for **A** and **B**.

```

1 count1 = 0, count2 = 0
2 while(Table 1 has more rows){
3     Read the first row X in Table 1
4     if(...A.... or ....B....){
5         count1 = count1 + 1
6     }
7     else{
8         count2 = count2 + 1
9     }
10    Move X to Table 2
11 }
```

### Options :

A: `x.Gender == 'F'`

6406532470048. ❌ B: `x.Mathematics > x.Physics`

A: `x.Gender == 'M'`

6406532470049. ❌ B: `x.Mathematics < x.Physics`

A: `x.Gender == 'F'`

6406532470050. ✓ B: `x.Mathematics < x.Physics`

A: `x.Gender == 'M'`

6406532470051. ❌ B: `x.Mathematics > x.Physics`

**Question Number : 5 Question Id : 640653738124 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 **A** represent at the end of the execution?

```

1 A = 0
2 while(Pile 1 has more cards){
3     Read the top card x from Pile 1
4     A = A + isInSeq(x)
5     Move X to Pile 2
6 }
7
8 Procedure isInSeq(X)
9     if(X.Mathematics > X.Physics){
10         if(X.Physics < X.Chemistry){
11             return(1)
12         }
13     }
14     return(0)
15 End isInSeq

```

### Options :

6406532470068. ✘ Number of students with highest marks in Mathematics among the three subjects

6406532470069. ✘ Number of students with highest marks in Mathematics and lowest marks in Physics

6406532470070. ✘ Number of students with highest marks in Chemistry among the three subjects

6406532470071. ✓ Number of students with lowest marks in Physics among the three subjects

**Question Number : 6 Question Id : 640653738126 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.

```

1 count = 0
2 while(Table 1 has more rows){
3     Read the first row X in Table 1
4     Move X to Table 2
5     i = 1, A = False, B = False
6     while(i ≤ X.LetterCount){
7         if(ith letter of X.Word is a vowel){
8             if(A){
9                 B = True
10            }
11            A = True
12        }
13        else{
14            A = False
15        }
16        i = i + 1
17    }
18    if(B){
19        count = count + 1
20    }
21 }
```

What will **count** represent at the end of execution?

**Options :**

6406532470076. ✓ Number of words with at least one pair of vowels occurring consecutively

6406532470077. ✗ Number of words with at most two pairs of vowels occurring consecutively

6406532470078. ✗ Number of words with at least two pairs of the same vowel occurring consecutively

6406532470079. ✗ Number of words with at most two pairs of the same vowel occurring consecutively

**Sub-Section Number :** 3

**Sub-Section Id :** 640653107914

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 7 Question Id : 640653738120 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" table. At the end of the execution, **count** stores the number of pairs of nouns such that both nouns have either the same letter count or both end with a full stop. Choose the correct code fragment to complete the pseudocode.

```
1 count = 0
2 while(Table 1 has more rows){
3     Read the first row X in Table 1
4     Move X to Table 2
5     if(X.Partofspeech == "Noun"){
6         while(Table 1 has more rows){
7             Read the first row Y in Table 1
8             Move Y to Table 3
9             if(***(Statement 1****)){
10                 if(***(Statement 2****){
11                     count = count + 1
12                 }
13                 else{
14                     if(***(Statement 3****){
15                         count = count + 1
16                     }
17                 }
18             }
19         }
20         Move all rows from Table 3 to Table 1
21     }
22 }
```

**Options :**

6406532470052. ✓ Statement 1: **X.PartOfSpeech == Y.PartOfSpeech**

Statement 2: **X.LetterCount == Y.LetterCount**

Statement 3: **X.Word and Y.Word end with a full stop**

6406532470053. ✗ Statement 1: **X.Word and Y.Word end with a full stop**

Statement 2: **X.PartOfSpeech == Y.PartOfSpeech**

Statement 3: **X.LetterCount == Y.LetterCount**

6406532470054. ✗ Statement 1: **X.LetterCount == Y.LetterCount**

Statement 2: **X**.Word and **Y**.Word end with a full stop

Statement 3: **X**.PartOfSpeech == **Y**.PartOfSpeech

6406532470055. ✶ Statement 1: **X**.LetterCount == **Y**.LetterCount

Statement 2: **X**.PartOfSpeech == **Y**.PartOfSpeech

Statement 3: **X**.Word and **Y**.Word end with a full stop

**Question Number : 8 Question Id : 640653738121 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 "Scores" dataset. At the end of the execution, variable **Count** captures the number of students whose total marks are more than the class average (of total marks) but have scored below the subject average in at least one subject. Assume that the variable **AvgT** holds the value of the average total marks. Similarly, the variables **AvgP**, **AvgC** and **AvgM** hold the value of the average marks of Physics, Chemistry and Mathematics respectively. Choose the correct code fragment to complete the pseudocode.

```

1 Count = 0
2 while(Table 1 has more rows){
3     Read the first row X from Table 1
4     A = False, B = False, C = False, D = False
5     if(X.Total > AvgT){
6         A = True
7     }
8     if(X.Mathematics < AvgM){
9         B = True
10    }
11    if(X.Physics < AvgP){
12        C = True
13    }
14    if(X.Chemistry < AvgC){
15        D = True
16    }
17    *****
18    * Fill the code *
19    *****
20    Move X to Table 2
21 }
```

## Options :

```

1 if(A and (B or C or D)){
2     Count = Count + 1
3 }
```

6406532470056. ✓

```

1 if(A or (B and C and D)){
2     Count = Count + 1
3 }
```

6406532470057. ✗

```

1 if(A and not(B and C and D)){
2     Count = Count + 1
3 }
```

6406532470058. ✗

```

1 if(A or not(B or C or D)){
2     Count = Count + 1
3 }
```

6406532470059. ✗

**Question Number : 9 Question Id : 640653738122 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. What will **A** represent at the end of the execution?

```
1 SumT = 0, CountT = 0, B = 0
2 while(Table 1 has more rows){
3     Read the first row X in Table 1
4     CountT = CountT + 1
5     SumT = SumT + X.LetterCount
6     Move X to Table 2
7 }
8 B = SumT / CountT
9
10 Sums = 0, Counts = 0, A = 0, C = 0
11 while(Table 2 has more rows){
12     Read the first row X in Table 2
13     Counts = Counts + 1
14     Sums = Sums + X.LetterCount
15     if(X.word ends with a full stop){
16         C = Sums / Counts
17         if(c < B){
18             A = A + 1
19         }
20         Sums = 0, Counts = 0
21     }
22     Move X to Table 1
23 }
```

**Options :**

6406532470060. ❗ Number of sentences with average letter count more than the average letter count of dataset

6406532470061. ✓ Number of sentences with average letter count less than the average letter count of dataset

6406532470062. ❖ Number of words with average letter count more than the average letter count per word of dataset

6406532470063. ❖ Number of words with average letter count less than the average letter count per word of dataset

**Question Number : 10 Question Id : 640653738123 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

Procedure **miniSum** accepts three numbers as parameters and returns the sum of two smallest numbers.

Choose the correct code fragment to complete the procedure.

```
1 Procedure minisum(A, B, C)
2     Sum = 0
3     if(A > C and A > B){
4         Sum = B + C
5     }
6     ****
7     * Fill the code *
8     ****
9     return(Sum)
10 End minisum
```

**Options :**

```
1 else{
2     if(B > C and B > A){
3         Sum = A + C
4     }
5     else{
6         Sum = A + B
7     }
8 }
```

6406532470064. ✓

6406532470065. ❖

```
1 if(B > C and B > A){  
2     Sum = A + C  
3 }  
4 else{  
5     Sum = A + B  
6 }
```

```
1 else{  
2     Sum = A + B  
3 }  
4 if(C > B and B > A){  
5     Sum = A + C  
6 }  
7
```

6406532470066. \*

```
1 else{  
2     Sum = A + B  
3 }  
4 if(C > B and B > A){  
5     Sum = B + C  
6 }
```

6406532470067. \*

**Question Number : 11 Question Id : 640653738125 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 “Olympics” dataset. Procedure **doSomething** accepts a table of rows which contains rows of the same player. Assume that the player has won at least two medals and only one medal in any year. What will (**B - A**) represent at the end of the execution?

```

1 Procedure dosomething(Table T1)
2     A = 2030, B = 2030
3     while(Table T1 has more rows){
4         Read the first row z from Table T1
5         if(z.Year < A){
6             B = A
7             A = Z.Year
8         }
9         if(z.Year > A and z.Year < B){
10            B = Z.Year
11        }
12        Move the row z to Table T2
13    }
14    return((B - A))
15 End dosomething

```

### Options :

6406532470072. ✓ Year gap between first and second medal won by a player

6406532470073. ✗ Year gap between first and latest medal won by a player

6406532470074. ✗ Year gap between latest and second latest medal won by a player

6406532470075. ✗ Year gap between first and second latest medal won by a player

**Sub-Section Number :** 4

**Sub-Section Id :** 640653107915

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 12 Question Id : 640653738127 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 given pseudocode is executed using the “Olympics” table. What will **count** represent at the end of the execution? Assume all players have distinct names.

```

1 count = 0
2 while(Table 1 has more rows){
3     Read the first row X in Table 1
4     Move X to Table 2
5     while(Table 1 has more rows){
6         Read the first row Y in Table 1
7         Move Y to Table 3
8         if(X.Name != Y.Name){
9             if(X.Nationality == Y.Nationality and X.Medal == Y.Medal){
10                 count = count + 1
11             }
12         }
13     }
14     Move all rows from Table 3 to Table 1
15 }
```

### Options :

6406532470080. ✘ The number of pairs of players having the same nationality or the same medal.

6406532470081. ✓ The number of pairs of players having the same nationality and same medal.

6406532470082. ✘ The number of players having the same nationality and same medal.

6406532470083. ✘ The number of players having the different name but of same nationality.

**Sub-Section Number :** 5

**Sub-Section Id :** 640653107916

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 13 Question Id : 640653738128 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Max. Selectable Options : 0**

Question Label : Multiple Select Question

The given pseudocode is executed using the “Shopping Bills” dataset. **frac** stores the ratio of the number of customers who purchased both “Bread” and “Milk” to the number of customers who purchased “Milk”. Choose the correct code fragment(s) of procedure **hasItem** to complete the pseudocode. (Assume there is at least one customer who has purchased “Milk”).

```

1 mCount = 0, bCount = 0
2 while(Pile 1 has more cards){
3     Read the top card X in Pile 1
4     if(hasItem(X, "Milk")){
5         mCount = mCount + 1
6         if(hasItem(X, "Bread")){
7             bCount = bCount + 1
8         }
9     }
10    Move X to Pile 2.
11}
12 frac = bCount / mCount
13
14 Procedure hasItem (Y, A)
15 *****
16 * Fill the code *
17 *****
18 End hasItem

```

## Options :

```

1 C = False
2 while(Card Y has more items){
3     Read an item Z from ItemList of card Y
4     if(Z.Item == A){
5         C = True
6     }
7     else{
8         C = False
9     }
10    Remove Z from ItemList of Y
11}
12 return(C)

```

6406532470084. ✖

```

1 C = False
2 while(Card Y has more items){
3     Read an item Z from ItemList of card Y
4     if(Z.Item == A){
5         C = True
6     }
7     Remove Z from ItemList of Y
8 }
9 return(C)

```

6406532470085. ✓

```
1   C = True
2   while(card Y has more items){
3       Read an item z from ItemList of card Y
4       if(z.Item == A){
5           C = True
6       }
7       Remove z from ItemList of Y
8   }
9   return(c)
```

6406532470086. ❌

```
1   C = True
2   while(card Y has more items){
3       Read an item z from ItemList of card Y
4       if(z.Item == A){
5           C = False
6       }
7       Remove z from ItemList of Y
8   }
9   return not(c)
```

6406532470087. ✓

**Question Number : 14 Question Id : 640653738129 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Max. Selectable Options : 0**

Question Label : Multiple Select Question

The given information represents a "Words" dataset and it may have some mistakes with respect to the sanity of data. Identify all rows with such mistakes.

Row no.	Field	Value
Row 1	Card number	"xyz"
Row 2	Word	1
Row 3	Part of Speech	"Noun"
Row 4	Letter Count	- 5

### Options :

6406532470088. ✓ Row 1: Incorrect data type of card number

6406532470089. ✓ Row 2: Incorrect data type of Word

6406532470090. ✗ Row 3: Incorrect data type of Part of Speech

6406532470091. ✗ Row 3: Invalid value of Part of Speech

6406532470092. ✗ Row 4: Incorrect data type of Letter Count

6406532470093. ✓ Row 4: Invalid value of Letter Count

**Question Number : 15 Question Id : 640653738130 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Max. Selectable Options : 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 having either same gender or from the same city but not both. 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.

```

1 count = 0
2 while(Table 1 has more rows){
3     Read the first row X in Table 1
4     Move X to Table 2
5     while(Table 1 has more rows){
6         Read the first row Y in Table 1
7         Move Y to Table 3
8         count = count + findPair(X, Y)
9     }
10    Move all rows from Table 3 to Table 1
11}
12 Procedure findPair(X, Y)
13    A = False, B = True
14    if(X.Gender == Y.Gender){
15        A = True
16    }
17    if(X.cityTown == Y.cityTown){
18        B = True
19    }
20    if((A and not B) and (not A and B)){
21        return(1)
22    }
23    return(0)
24 End findPair

```

### Options :

6406532470094. ✓ Line 13: Incorrect initialisation of B

6406532470095. ✗ Line 18: Incorrect update of B

6406532470096. ✓ Line 20: Incorrect condition

6406532470097. ✗ Line 21: It should return(0)

**Sub-Section Number :** 6

**Sub-Section Id :** 640653107917

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 16 Question Id : 640653738131 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

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

"Surrounded by nature, Susan often takes a stroll, savoring the soothing sounds of chirping birds. Such moments underline the significance of embracing simple joys in life. Rustlings in the trees suggest squirrels beginning their day, searching for sustenance. Surely, the beauty of a sunrise holds unparalleled magic."

```
1 count = 0, flag = True
2 while(Table 1 has more rows){
3     Read the first row x in Table 1
4     Move x to Table 2
5     if(flag){
6         if(1st letter of x.word == 's'){
7             if(2nd letter of x.word == 'u'){
8                 count = count + 1
9             }
10        }
11    }
12    flag = False
13    if(x.word ends with full stop){
14        flag = True
15    }
16 }
```

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 :**

## Sem1 English1

<b>Section Id :</b>	64065351395
<b>Section Number :</b>	2
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	24
<b>Number of Questions to be attempted :</b>	24
<b>Section Marks :</b>	50
<b>Display Number Panel :</b>	Yes
<b>Section Negative Marks :</b>	0
<b>Group All Questions :</b>	No
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Maximum Instruction Time :</b>	0
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	640653107918
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Number : 17 Question Id : 640653738132 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 I: ENGLISH I (COMPUTER BASED EXAM)"**

**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 :**

6406532470099. ✓ YES

6406532470100. ✘ NO

**Sub-Section Number :** 2

**Sub-Section Id :** 640653107919

**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id : 640653738133 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 : (18 to 27)**

Question Label : Comprehension

**Read the following passage and answer the given subquestions.**

These stories are all from the Andaman and Nicobar archipelago.

Ignesious was the manager of a cooperative society in Katchall. His wife woke him up at 6 a.m. because she felt an earthquake. Ignesious carefully took his television set off its table and put it down on the ground so that it would not fall and break. Then the family rushed out of the house.

When the tremors stopped, they saw the sea rising. In the chaos and confusion, two of his children caught hold of the hands of their mother's father and mother's brother, and rushed in the opposite direction. He never saw them again. His wife was also swept away. Only the three other children who came with him were saved.

Sanjeev was a policeman, serving in the Katchall island of the Nicobar group of islands. He somehow managed to save himself, his wife and his baby daughter from the waves. But then he heard cries for help from the wife of John, the guesthouse cook. Sanjeev jumped into the water to

rescue her, but they were both swept away.

Thirteen year-old Meghna was swept away along with her parents and seventy-seven other people. She spent two days floating in the sea, holding on to a wooden door. Eleven times she saw relief helicopters overhead, but they did not see her. She was brought to the shore by a wave, and was found walking on the seashore in a daze.

Almas Javed was ten years old. She was a student of Carmel Convent in Port Blair where her father had a petrol pump. Her mother Rahila's home was in Nancowry island. The family had gone there to celebrate Christmas.

When the tremors came early in the morning, the family was sleeping. Almas's father saw the sea water recede. He understood that the water would come rushing back with great force. He woke everyone up and tried to rush them to a safer place.

As they ran, her grandfather was hit on the head by something and he fell down. Her father rushed to help him. Then came the first giant wave that swept both of them away.

Almas's mother and aunts stood clinging to the leaves of a coconut tree, calling out to her. A wave uprooted the tree, and they too were washed away.

Almas saw a log of wood floating. She climbed on to it. Then she fainted. When she woke up, she was in a hospital in Kamorta. From there she was brought to Port Blair. The little girl does not want to talk about the incident with anyone. She is still traumatised.

*The Tsunami - Sonali Deraniyagala*

### **Sub questions**

**Question Number : 18 Question Id : 640653738134 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 'archipelago' ?

**Options :**

6406532470101. ❌ A collection of jewellery

6406532470102. ✓ A collection of Islands

6406532470103. ❌ A collection of stamps

6406532470104. ❌ A collection of coins

**Question Number : 19 Question Id : 640653738135 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

Fill in the blank with the appropriate option.

Ignesious was the manager of a cooperative society in \_\_\_\_\_.

**Options :**

6406532470105. ❌ Lucknow

6406532470106. ✓ Katchall

6406532470107. ❌ Coimbatore

6406532470108. ❌ Kanpur

**Question Number : 20 Question Id : 640653738136 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 among the following words is the antonym of 'order' ?

**Options :**

6406532470109. ✓ Chaos

6406532470110. ✗ Structure

6406532470111. ✗ Arrangement

6406532470112. ✗ System

**Question Number : 21 Question Id : 640653738137 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

Select true or false for the following statement.

Sanjeev made it to safety after the tsunami.

**Options :**

6406532470113. ✗ True

6406532470114. ✓ False

**Question Number : 22 Question Id : 640653738138 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

Fill in the blanks with the correct option.

"\_\_\_\_\_ she saw relief helicopters overhead, but they did not see her."

**Options :**

6406532470115. ✓ Eleven times

6406532470116. ✗ Twelve times

6406532470117. ✘ Fourteen times

6406532470118. ✘ Ten times

**Question Number : 23 Question Id : 640653738139 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

Select true or false for the following statement.

Almas's father realised that a tsunami was going to hit the Island.

**Options :**

6406532470119. ✓ True

6406532470120. ✘ False

**Question Number : 24 Question Id : 640653738140 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

Select true or false for the following statement.

*"Meghna was saved by a relief helicopter."*

**Options :**

6406532470121. ✘ True

6406532470122. ✓ False

**Question Number : 25 Question Id : 640653738141 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

Fill in the blanks.

Almas Javed was a \_\_\_\_\_ old girl.

**Options :**

6406532470123. ✓ Ten year

6406532470124. ✗ Eleven year

6406532470125. ✗ Five year

6406532470126. ✗ Seven year

**Question Number : 26 Question Id : 640653738142 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

Select true or false for the following statement.

Ignesious lost his wife, two children, his father-in-law, and his brother-in-law in the tsunami.

**Options :**

6406532470127. ✓ True

6406532470128. ✗ False

**Question Number : 27 Question Id : 640653738143 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

Fill in the blanks.

Sanjeev was a \_\_\_\_\_.

**Options :**

6406532470129. ✘ Doctor

6406532470130. ✘ Student

6406532470131. ✘ Professor

6406532470132. ✓ Policeman

**Sub-Section Number :** 3

**Sub-Section Id :** 640653107920

**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id : 640653738164 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 : (28 to 32)**

Question Label : Comprehension

**Match the words in List A with the correct synonyms in List B.**

List A	List B
(i) Prove	(a) Wearied
(ii) Maladroit	(b) Counsel
(iii) Tired	(c) Gravelly
(iv) Coach	(d) Establish
(v) Coarse	(e) Clumsy

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 28 Question Id : 640653738165 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

Prove

**Options :**

6406532470211. ❌ Wearied

6406532470212. ❌ Counsel

6406532470213. ❌ Gravelly

6406532470214. ✓ Establish

6406532470215. ❌ Clumsy

**Question Number : 29 Question Id : 640653738166 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

Maladroit

**Options :**

6406532470216. ❌ Wearied

6406532470217. ❌ Counsel

6406532470218. ❌ Gravelly

6406532470219. ❌ Establish

6406532470220. ✓ Clumsy

**Question Number : 30 Question Id : 640653738167 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

Tired

**Options :**

6406532470221. ✓ Wearied

6406532470222. ✗ Counsel

6406532470223. ✗ Gravelly

6406532470224. ✗ Establish

6406532470225. ✗ Clumsy

**Question Number : 31 Question Id : 640653738168 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

Coach

**Options :**

6406532470226. ✗ Wearied

6406532470227. ✓ Counsel

6406532470228. ✗ Gravelly

6406532470229. ✗ Establish

6406532470230. ✗ Clumsy

**Question Number : 32 Question Id : 640653738169 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

Coarse

**Options :**

6406532470231. ❌ Wearied

6406532470232. ❌ Counsel

6406532470233. ✓ Gravelly

6406532470234. ❌ Establish

6406532470235. ❌ Clumsy

**Sub-Section Number :** 4

**Sub-Section Id :** 640653107921

**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id : 640653738170 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 : (33 to 37)**

Question Label : Comprehension

**Read the following telephonic conversation and answer the given subquestions with appropriate responses:**

Samrat: Hello, Priya! How are you?

Priya:(i) \_\_\_\_\_, and you?

Samrat: I am also fine. By the way, (ii) \_\_\_\_\_

Priya: A very good idea indeed. Let us fix up a date and a venue.

Samrat: (iii) \_\_\_\_\_

Priya: Oh, fine! Darjeeling is a very beautiful and historical place.

Samrat: (iv) \_\_\_\_\_

Priya: Only your brothers and sisters and mine. When shall we start?

Samrat: We shall start at 6 o'clock from our residence.

Priya: (v) \_\_\_\_\_

Samrat: Biriyani. Don't you like it?

Priya: Of course, but we will cook our food ourselves.

## Sub questions

**Question Number : 33 Question Id : 640653738171 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

Fill in the blank (i) with an appropriate response?

**Options :**

6406532470236. ✓ I am fine

6406532470237. ✗ My sister is fine

6406532470238. ✗ My brother is fine

6406532470239. ✗ My aunt is fine

**Question Number : 34 Question Id : 640653738172 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

Fill in the blank (ii) with an appropriate response?

**Options :**

6406532470240. ✓ Do you want to go out for a picnic?

6406532470241. ✎ Where are you staying currently?

6406532470242. ✎ When are you going to the party?

6406532470243. ✎ Which place are you from?

**Question Number : 35 Question Id : 640653738173 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

Fill in the blank (iii) with an appropriate response?

**Options :**

6406532470244. ✎ Can you give me your number?

6406532470245. ✓ What about going to Darjeeling next Friday?

6406532470246. ✎ Could you drop me at the bus stand?

6406532470247. ✎ Can you come home this week?

**Question Number : 36 Question Id : 640653738174 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

Fill in the blank (iv) with an appropriate response?

**Options :**

6406532470248. ✎ How much time will it take?

6406532470249. ✎ What plans have you made?

6406532470250. ✓ Who will be with us?

6406532470251. ❀ How're you doing?

**Question Number : 37 Question Id : 640653738175 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

Fill in the blank (v) with an appropriate response?

**Options :**

6406532470252. ❀ What have you been up to?

6406532470253. ❀ What are you doing?

6406532470254. ❀ What about the party?

6406532470255. ✓ What about the menu?

**Sub-Section Number :** 5

**Sub-Section Id :** 640653107922

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 38 Question Id : 640653738144 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 among the following words have a vowel sound similar to that of 'pack'?

**Options :**

6406532470133. ✓ Cat

6406532470134. ❀ Bleat

6406532470135. ❀ Shear

6406532470136. ❌ Boat

**Question Number : 39 Question Id : 640653738145 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 an “u” sound from the following.

**Options :**

6406532470137. ❌ Root

6406532470138. ✓ Foot

6406532470139. ❌ Court

6406532470140. ❌ Both Root and Foot

**Question Number : 40 Question Id : 640653738146 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 semi-vowel occurs in the transition between the words ‘she’ and ‘offered’ in the sentence ‘she offered to help me with my assignment’?

**Options :**

6406532470141. ❌ /w/

6406532470142. ✓ /y/

**Question Number : 41 Question Id : 640653738147 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 among the following is a word without a diphthong?

**Options :**

6406532470143. ✘ Snout

6406532470144. ✘ Stout

6406532470145. ✓ Sport

6406532470146. ✘ Shout

**Question Number : 42 Question Id : 640653738148 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

Pick the odd one out based on the initial sound: noun, down, town, gown.

**Options :**

6406532470147. ✘ Noun

6406532470148. ✘ Down

6406532470149. ✘ Town

6406532470150. ✓ Gown

**Question Number : 43 Question Id : 640653738149 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

Pick the odd one out based on the similarity of sounds: lit, mitt, knit, feet.

**Options :**

6406532470151. ✘ Lit

6406532470152. ✘ Mitt

6406532470153. ✘ Knit

6406532470154. ✓ Feet

**Question Number : 44 Question Id : 640653738151 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 part of speech of the underlined word:

*Their fans were very disappointed after the loss in the finals.*

**Options :**

6406532470159. ✘ Noun

6406532470160. ✓ Pronoun

6406532470161. ✘ Verb

6406532470162. ✘ Conjunction

**Question Number : 45 Question Id : 640653738152 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

Complete sentence by choosing the correct form of the verb given in brackets:

We will get it \_\_\_\_ (do).

**Options :**

6406532470163. ✘ Do

6406532470164. ✘ Doing

6406532470165. ✓ Done

6406532470166. ✘ Did

**Question Number : 46 Question Id : 640653738153 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 part of speech of the underlined word:

*I walked slowly to the park.*

**Options :**

6406532470167. ✘ Adjective

6406532470168. ✓ Adverb

6406532470169. ✘ Verb

6406532470170. ✘ Conjunction

**Question Number : 47 Question Id : 640653738154 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 adverb in the following sentence:

*Please walk carefully; the floor is wet.*

**Options :**

6406532470171. ✘ Please

6406532470172. ✘ Walk

6406532470173. ✓ Carefully

6406532470174. ✘ Floor

**Question Number : 48 Question Id : 640653738155 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 appropriate option:

*When I finally reached the ticket counter, John was already standing in line \_\_\_ of me.*

**Options :**

6406532470175. ✓ Ahead

6406532470176. ✘ Above

6406532470177. ✘ Against

6406532470178. ✘ Across

**Question Number : 49 Question Id : 640653738156 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 appropriate option.

Sushma is worried \_\_\_\_\_ the exam.

**Options :**

6406532470179. ✘ In

6406532470180. ✓ About

6406532470181. ✘ On

6406532470182. ✘ Of

**Question Number : 50 Question Id : 640653738157 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 conjunction in the following sentence:

*'He may be poor but his character is faultless.'*

**Options :**

6406532470183. ✘ He

6406532470184. ✘ Maybe

6406532470185. ✓ But

6406532470186. ✘ Character

**Question Number : 51 Question Id : 640653738158 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 correct option:

*There is \_\_\_\_\_ emergency exit to your left.*

**Options :**

6406532470187. ✘ A

6406532470188. ✓ An

6406532470189. ✘ The

6406532470190. ✘ None of these

**Question Number : 52 Question Id : 640653738159 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 correct option:

*This is \_\_\_\_\_ best chocolate cake I've ever had.*

**Options :**

6406532470191. ✘ A

6406532470192. ✘ An

6406532470193. ✓ The

6406532470194. ✘ None of these

**Question Number : 53 Question Id : 640653738160 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 correct option:

*The storm \_\_\_\_\_ the coast badly.*

**Options :**

6406532470195. ✘ Effected

6406532470196. ✓ Affected

6406532470197. ✘ Both Effect and Affected

6406532470198. ✘ None of these

**Question Number : 54 Question Id : 640653738161 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

'The new iPhone seems to cost everyone not just an arm and a leg, but also a kidney.' What does 'to cost an arm and a leg' mean?

**Options :**

6406532470199. ✓ To be very expensive

6406532470200. ✘ To be very short-lived

6406532470201. ✘ To be very cheap

6406532470202. ✘ To be afraid of surgery

**Question Number : 55 Question Id : 640653738162 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 separable phrasal verb out of the following options.

**Options :**

6406532470203. ✘ Live on

6406532470204. ✘ See about

6406532470205. ✘ Take after

6406532470206. ✓ Sum up

**Question Number : 56 Question Id : 640653738163 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

Fill in the blank with the appropriate option.

*The kids were well \_\_\_\_\_.*

**Options :**

6406532470207. ✘ Got off

6406532470208. ✘ Gave up

6406532470209. ✓ Brought up

6406532470210. ✘ Pick up

**Sub-Section Number :** 6

**Sub-Section Id :** 640653107923

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 57 Question Id : 640653738150 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Select the option which identifies the noun in the sentence:

*Shraddha is a brilliant student.*

**Options :**

6406532470155. ✨ Brilliant

6406532470156. ✨ Is

6406532470157. ✓ Student

6406532470158. ✓ Shraddha

## Sem1 Maths1

<b>Section Id :</b>	64065351396
<b>Section Number :</b>	3
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	12
<b>Number of Questions to be attempted :</b>	12
<b>Section Marks :</b>	50
<b>Display Number Panel :</b>	Yes
<b>Section Negative Marks :</b>	0
<b>Group All Questions :</b>	No
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Maximum Instruction Time :</b>	0
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	640653107924
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Number : 58 Question Id : 640653738176 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 I: MATHEMATICS FOR DATA SCIENCE I (COMPUTER BASED EXAM)"**

**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 :**

6406532470256. ✓ YES

6406532470257. ✗ NO

**Question Number : 59 Question Id : 640653738177 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.

**Options :**

6406532470258. ✓ Useful Data has been mentioned above.

6406532470259. ✗ This data attachment is just for a reference & not for an evaluation.

<b>Sub-Section Number :</b>	2
<b>Sub-Section Id :</b>	640653107925
<b>Question Shuffling Allowed :</b>	Yes
<b>Is Section Default? :</b>	null

**Question Number : 60 Question Id : 640653738178 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 5 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Consider the following relations defined on the set of integers:

- $R_1 = \{(x, y) : x, y \in \mathbb{Z} \text{ and } |x - y| \leq 3\}$ .
- $R_2 = \{(x, y) : x, y \in \mathbb{Z} \text{ and } 3 \text{ divides } x - y\}$ .

Choose the correct option(s):

**Options :**

6406532470260. ✓  $R_1$  is reflexive and symmetric.

6406532470261. ✗  $R_2$  is symmetric but not transitive.

6406532470262. ✗  $R_1$  is an equivalence relation but  $R_2$  is not an equivalence relation.

6406532470263. ✓  $R_2$  is an equivalence relation but  $R_1$  is not an equivalence relation.

**Question Number : 61 Question Id : 640653738179 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 5 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Let  $f(x) = |x^2 - 4| - 1$ . Which of the following option(s) are true for  $f$ ?

**Options :**

6406532470264. ✓  $f$  is defined for all  $x \in \mathbb{R}$ .

6406532470265. ✗  $f$  is one-one

6406532470266. ✓ The range of  $f$  is  $[-1, \infty)$ .

6406532470267. ✗ The minimum value of  $f$  is 0.

**Question Number : 62 Question Id : 640653738194 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 5 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Consider two polynomials  $p(x) = -x^5 + 5x^4 - 7x - 2$  and  $q(x) = -x^5 + 5x^4 - x^2 - 2$ .  
Which of the following options is/are true?

**Options :**

6406532470294. ✗  $q(x) \rightarrow \infty$  as  $x \rightarrow \infty$ .

6406532470295. ✓  $p(x) \rightarrow -\infty$  as  $x \rightarrow \infty$ .

6406532470296. ✓  $p(x)$  has at most 4 turning points.

6406532470297. ✓ The quotient obtained while dividing  $q(x)$  by  $p(x)$  is a constant.

**Sub-Section Number :** 3

**Sub-Section Id :** 640653107926

**Question Shuffling Allowed :** No

**Is Section Default? :**

null

**Question Id : 640653738180 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 : (63 to 64)**

Question Label : Comprehension

Consider two triangles  $ABC$  and  $PAB$  with coordinates  $A(4, 3)$ ,  $B(2, 2)$ ,  $C(8, 3)$  and  $P(t, t^2)$ . The area of triangle  $ABC$  is 4 times the area of the triangle  $PAB$ .

Based on the above data, answer the given subquestions.

### **Sub questions**

**Question Number : 63 Question Id : 640653738181 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 area of the triangle  $ABC$ ?

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

**2**

**Question Number : 64 Question Id : 640653738182 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 5 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Choose all the possible options for  $P$ .

**Options :**

6406532470269. ✘ (0, 0)

6406532470270. ✘ (2, 4)

6406532470271. ✘ (-2, 4)

6406532470272. ✓ (-1, 1)

6406532470273. ✓ (1, 1)

**Sub-Section Number :** 4

**Sub-Section Id :** 640653107927

**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id : 640653738183 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 : (65 to 66)**

Question Label : Comprehension

Suppose that  $L_1$  and  $L_2$  are lines in the plane, with the  $x$ -intercepts of  $L_1$  and  $L_2$  are 2 and  $-1$ , respectively, and that the respective  $y$ -intercepts are  $-3$  and 2.

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 65 Question Id : 640653738184 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

Choose the point where  $L_1$  and  $L_2$  intersect.

**Options :**

6406532470274. ✘ (10, 18)

6406532470275. ✘ (5, 8)

6406532470276. ✓ (-10,-18)

6406532470277. ✘ (6, 6)

**Question Number : 66 Question Id : 640653738185 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

If  $\theta$  is the angle between  $L_1$  and  $L_2$ , then  $\tan \theta$  is equal to

**Options :**

6406532470278. ✓  $\frac{1}{8}$

6406532470279. ✘  $\frac{1}{6}$

6406532470280. ✘  $\frac{3}{8}$

6406532470281. ✘  $\frac{1}{4}$

<b>Sub-Section Number :</b>	5
<b>Sub-Section Id :</b>	640653107928
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Id : 640653738186 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 : (67 to 68)**

Question Label : Comprehension

In a grocery store, 60 customers made a purchase on a specific day. 28 people bought bread, 37 people bought milk and 30 people bought fruits. All the customers bought at least one of the three items. 16 of them bought bread and fruits, 17 of them bought bread and milk and 9 of them bought all the three items.

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 67 Question Id : 640653738187 Question Type : SA Calculator : None**

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

**Correct Marks : 2**

Question Label : Short Answer Question

Find the number of customers who bought milk and fruits.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

11

**Question Number : 68 Question Id : 640653738188 Question Type : SA Calculator : None**

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

**Correct Marks : 2**

Question Label : Short Answer Question

Find the number of customers who bought milk and fruits but not bread.

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

2

**Sub-Section Number :** 6

**Sub-Section Id :** 640653107929

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

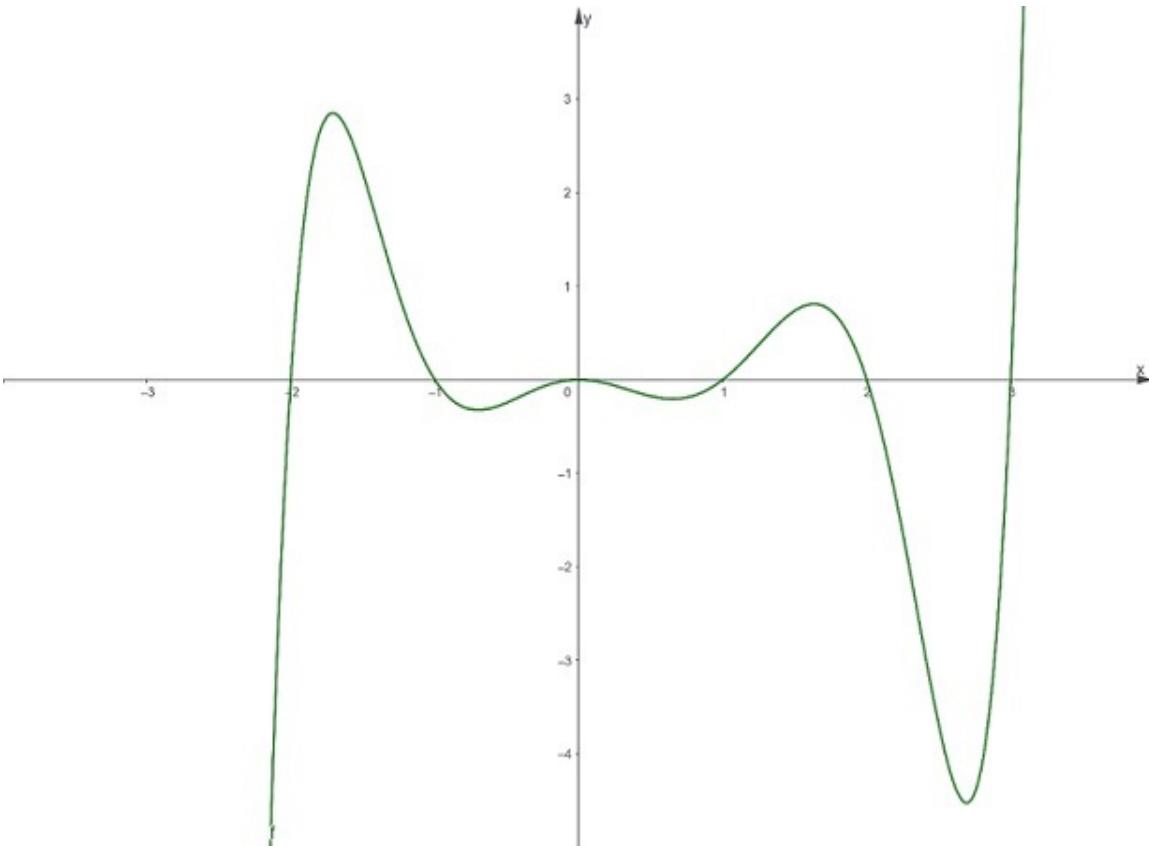
**Question Number :** 69 **Question Id :** 640653738189 **Question Type :** MSQ **Is Question**

**Mandatory :** No **Calculator :** None **Response Time :** N.A **Think Time :** N.A **Minimum Instruction Time :** 0

**Correct Marks :** 4 **Max. Selectable Options :** 0

**Question Label :** Multiple Select Question

Consider the following polynomial  $p(x)$  whose graph is given below:-



Which of the following options is/are correct.

**Options :**

6406532470284. ❌ Multiplicity of -1 and 1 must be same.

6406532470285. ✓  $p(x)$  is increasing in the interval  $(3, \infty)$ .

6406532470286. ✓ The total number of local minima is 3.

6406532470287. ❌ The number of turning points is 5.

**Question Number : 70 Question Id : 640653738190 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Which of the following options is/are true?

**Options :**

6406532470288. ❌ The point at which the slope of the equation  $x^2 + 2x - 5$  equals 10 is  $(4, 17)$

6406532470289. ✘  $x = 2$  is the axis of symmetry of the quadratic function  $f(x) = x^2 + 4x + 5$

If two different quadratic equations have same discriminant then  
6406532470290. ✓ the roots of both equations can be same.

The point at which the slope of the equation  $x^2 + 2x - 5$  equals  
6406532470291. ✓ 10 is (4,19)

**Sub-Section Number :** 7

**Sub-Section Id :** 640653107930

**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id : 640653738191 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 : (71 to 72)**

Question Label : Comprehension

If the slope of parabola  $y = Ax^2 + Bx + C$ , where  $A, B, C \in \mathbb{R}$  at points (3, 2) and (2, 3) are 16 and 12 respectively.

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 71 Question Id : 640653738192 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2.5**

Question Label : Short Answer Question

Calculate the value of A

**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 :** 640653738193 **Question Type :** SA **Calculator :** None

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

**Correct Marks :** 2.5

Question Label : Short Answer Question

Calculate the value of  $B$

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

4

**Sub-Section Number :** 8

**Sub-Section Id :** 640653107931

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number :** 73 **Question Id :** 640653738195 **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 and Shyam want to solve a quadratic equation. Ram made a mistake in writing down the

constant term and ended up in getting roots as 3 and 4. Shyam made a mistake in writing down the coefficient of  $x$  and got the roots as 2 and 3. Consider the leading coefficient to be 1 in all cases. The correct roots of the quadratic equation are:

**Options :**

6406532470298. ✘ 1 and 5

6406532470299. ✘ 2 and 6

6406532470300. ✓ 1 and 6

6406532470301. ✘ 2 and 5

## Sem1 Statistics1

<b>Section Id :</b>	64065351397
<b>Section Number :</b>	4
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	13
<b>Number of Questions to be attempted :</b>	13
<b>Section Marks :</b>	40
<b>Display Number Panel :</b>	Yes
<b>Section Negative Marks :</b>	0
<b>Group All Questions :</b>	No
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Maximum Instruction Time :</b>	0
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	640653107932
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Number : 74 Question Id : 640653738196 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 I: STATISTICS FOR DATA SCIENCE I (COMPUTER BASED EXAM)"**

**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 :**

6406532470302. ✓ YES

6406532470303. ✗ NO

**Sub-Section Number :** 2

**Sub-Section Id :** 640653107933

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 75 Question Id : 640653738197 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 teacher wants to know if the willingness of students to go for a school trip is associated with the gender of students. In this regard, the teacher collected the data from the school and plotted a 100% stacked bar chart as shown in Figure Q.1.

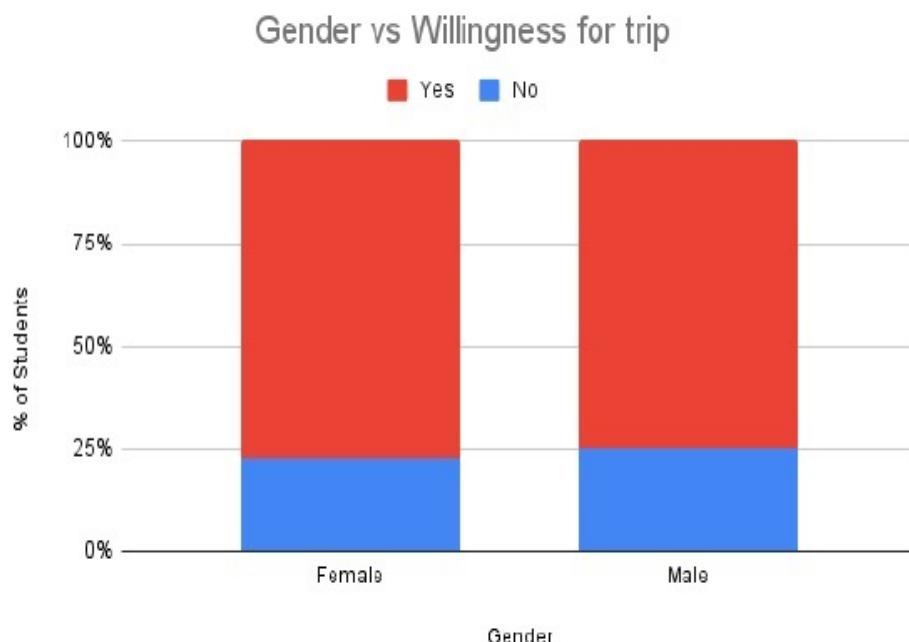


Figure Q.1: 100% Stacked bar chart of Gender vs willingness

What conclusion can you make about association between two variables “Gender” and “Willingness” by observing the plot?

**Options :**

6406532470304. ❌ There is an association between “Gender” and “Willingness” as row relative frequencies will be approximately same for all rows.

6406532470305. ✓ There is no association between “Gender” and “Willingness” as row relative frequencies will be approximately same for all rows.

6406532470306. ❌ There is an association between “Gender” and “Willingness” as row relative frequencies will be different for all rows.

6406532470307. ❌ There is no association between “Gender” and “Willingness” as row relative frequencies will be different for all rows.

**Sub-Section Number :** 3

**Sub-Section Id :** 640653107934

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 76 Question Id : 640653738198 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Max. Selectable Options : 0**

**Question Label : Multiple Select Question**

The following stem and leaf diagram represent the marks (out of 50) obtained by 20 students in an A-level mathematics paper:

Stem	Leaf
0	0 5 6 8
1	0 0 2 6
2	0 3 5 8
3	3 5 8 8
4	4 9
5	0 0

Here, 0 | 5 represents 5 marks.

Based on the given information, select the correct options from the following:

**Options :**

6406532470308. ✘ There are 9 students who have scored greater than 20 marks.

6406532470309. ✘ The data is bimodal.

6406532470310. ✓ Mean is greater than the median.

6406532470311. ✓ Interquartile range is 28.

**Sub-Section Number :** 4

**Sub-Section Id :** 640653107935

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 77 Question Id : 640653738199 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**

Table Q.1 shows the number of accidents on a highway over a period of  $n$  days:

Number of accidents	0	1	2	3	4	5
Frequency	10	4	$b$	4	1	2

Table Q.1

The average number of accidents is 1.6, then find the value of  $b + n$ .

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

39

**Question Number : 78 Question Id : 640653738206 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

Table Q.3 represents the heights (in inches) of five fathers ( $X$ ) and their sons ( $Y$ ).

$X$	65	65	60	80	80
$Y$	60	60	55	75	75

Table Q.3 : Heights (in inches) of fathers and their sons

What is the value of population covariance between  $X$  and  $Y$  ?

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

70

<b>Sub-Section Number :</b>	5
<b>Sub-Section Id :</b>	640653107936
<b>Question Shuffling Allowed :</b>	Yes
<b>Is Section Default? :</b>	null

**Question Number : 79 Question Id : 640653738200 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Max. Selectable Options : 0**

Question Label : Multiple Select Question

To ensure the accuracy of conclusions drawn through inferential statistics, which of the following statement(s) must be true?

**Options :**

6406532470313. ❌ Sample should not be randomly selected.

6406532470314. ✓ Sample should be randomly selected.

6406532470315. ✓ Sample should be a good representative of the population.

6406532470316. ❌ Sample should not be representative of the population.

**Question Number : 80 Question Id : 640653738201 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Which of the following statement(s) is/are true?

**Options :**

6406532470317. ❌ The gross annual income for each of 1000 randomly chosen households in New York City for the year 2000 is a time series data.

6406532470318. ❌ Passenger Name Record (PNR) number has an ordinal scale of measurement.

6406532470319.

- ✓ Revenue generated by India through tea exports to 10 different countries in year 2010 is a cross-sectional data.

6406532470320. ✓ Shirt size is a categorical variable.

<b>Sub-Section Number :</b>	6
<b>Sub-Section Id :</b>	640653107937
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Id : 640653738202 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 : (81 to 82)**

Question Label : Comprehension

An analyst conducted a survey to understand the opinions of college students regarding the quality of education at their institution. He collected the data from 10 students as:

“Fair”, “Fair”, “Excellent”, “Poor”, “Fair”, “Excellent”, “Poor”, “Poor”, “Excellent”, and “Poor”.

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 81 Question Id : 640653738203 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

What is the mode of the given data?

**Options :**

6406532470321. ✘ Excellent

6406532470322. ✓ Poor

6406532470323. ✘ Fair

6406532470324. ✘ Mode is not defined for the given data

**Question Number : 82 Question Id : 640653738204 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 median of the given data?

**Options :**

6406532470325. ✘ Poor

6406532470326. ✓ Fair

6406532470327. ✘ Excellent

6406532470328. ✘ Median is not defined for given data

**Sub-Section Number : 7**

**Sub-Section Id : 640653107938**

**Question Shuffling Allowed : Yes**

**Is Section Default? : null**

**Question Number : 83 Question Id : 640653738205 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 5 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Table Q.2 shows the count of sales of shirts at a men's clothing retailer.

Size	Style		
	Button-down	Polo	Small Print
Small	25	35	40
Medium	50	20	30
Large	60	20	20

Table Q.2

Choose the correct option/s from the following:

**Options :**

6406532470329. ✓ Of all the shirts with Polo style, there are 26.67% shirts of Medium size.

6406532470330. ✗ Of all the shirts with Small size, there are 25% shirts of Small Print style.

6406532470331. ✗ There is no association between the size and style of shirts.

6406532470332. ✓ There is an association between the size and style of shirts.

**Sub-Section Number :** 8

**Sub-Section Id :** 640653107939

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 84 Question Id : 640653738207 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**

Consider a dataset of 50 items. Suppose  $\sum_{i=1}^{50} (x_i - \bar{x})^2 = 8$  and  $\sum_{i=1}^{50} x_i = 20$ . Find the mean  $\bar{x}$  and population standard deviation  $\sigma$  of the dataset.

**Options :**

6406532470334. ✗  $\bar{x} = 20, \sigma = 8$

6406532470335. ✗  $\bar{x} = 1000, \sigma = 0.4$

6406532470336. ✓  $\bar{x} = 0.4, \sigma = 0.4$

6406532470337. ✗  $\bar{x} = 2.5, \sigma = 0.4$

**Question Number : 85 Question Id : 640653738208 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

Select the correct statements from the following:

**Options :**

6406532470338. ✓ Two data sets with the identical frequency distributions will have identical relative frequency distributions.

6406532470339. ✗ A relative frequency is the number of observations belonging to a category.

6406532470340. ✗ Two data sets with the identical relative-frequency distributions will always have identical frequency distributions.

6406532470341. ✗ If all of the bars in a bar chart have the same length, then the categorical variable shown in the bar chart has no variation.

**Sub-Section Number :** 9

**Sub-Section Id :** 640653107940

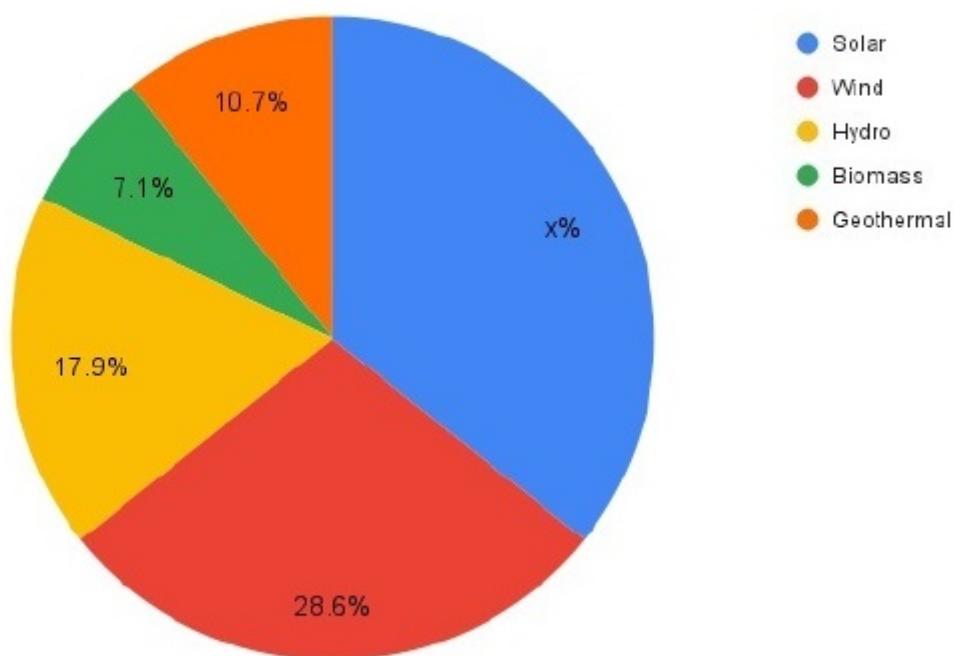
**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id : 640653738209 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 : (86 to 87)**

**Question Label : Comprehension**

Figure Q.2 illustrates the proportional distribution of renewable energy consumption across various sources throughout the country. The total renewable energy consumption is given as 350 kWh.



**Figure Q.2: Distribution of renewable energy consumption**

Based on the above information, answer the given subquestions:

**Sub questions**

**Question Number : 86 Question Id : 640653738210 Question Type : SA Calculator : None**

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

**Correct Marks : 2**

Question Label : Short Answer Question

Find the value of  $10x$ .

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

**Question Number : 87 Question Id : 640653738211 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction**

**Time : 0**

**Correct Marks : 3 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Choose the correct statement(s) from the following.

**Options :**

6406532470343. ✓ Mode of the data is solar energy.

6406532470344. ✗ Median of the data is wind energy.

6406532470345. ✓ The combined consumption of the hydro, biomass and geothermal energy is more than the wind energy consumption.

6406532470346. ✗ The consumption of solar energy is 120 kWh.

**Sub-Section Number :** 10

**Sub-Section Id :** 640653107941

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 88 Question Id : 640653738212 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction**

**Time : 0**

**Correct Marks : 3 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Table Q.4 represents the details of six persons who visit an online Website to purchase few items.

Person	Household size	Region	Income Range	Age (in years)	Purchase
Person 1	6	North Central	less than 50k	23	Yes
Person 2	5	North Central	50k - 60k	30	No
Person 3	4	West	60k-70k	35	Yes
Person 4	4	East	70k-80k	28	No
Person 5	6	South	80k-90k	35	No
Person 6	3	North Central	more than 90k	29	Yes

Table Q.4 : Details of six person who visit an online Website

Choose the correct option(s) from the following:

**Options :**

6406532470347. ✓ Purchase and Region are categorical variables.

6406532470348. ✗ Income Range has nominal scale of measurement.

6406532470349. ✓ Age has a ratio scale of measurement.

6406532470350. ✓ Household size is a discrete numerical variable.

6406532470351. ✗ Purchase has an ordinal scale of measurement.

## Sem2 English2

**Section Id :** 64065351398

**Section Number :** 5

**Section type :** Online

**Mandatory or Optional :** Mandatory

<b>Number of Questions :</b>	33
<b>Number of Questions to be attempted :</b>	33
<b>Section Marks :</b>	50
<b>Display Number Panel :</b>	Yes
<b>Section Negative Marks :</b>	0
<b>Group All Questions :</b>	No
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Maximum Instruction Time :</b>	0
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	640653107942
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Number : 89 Question Id : 640653738213 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 II: ENGLISH II (COMPUTER BASED EXAM)"**

**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 :**

6406532470352. ✓ YES

6406532470353. ✗ NO

<b>Sub-Section Id :</b>	640653107943
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Id : 640653738214 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 : (90 to 94)**

Question Label : Comprehension

Shara Hughes Interview

[i] \_\_\_\_, I grew up with three older brothers, and they always left me out. [ii] \_\_\_\_ I was always kind of independent playing [sic] (laughs). I quickly learned to be alone a lot in a place that was chaotic in a lot of ways. Not to say that we didn't get along; we did. I had a great family. But I think that I took a class in high school and it was a sculpture class and I remember...[my] having some kind of ideas and that was to make a sculpture in metals and wire and everyone else had [iii] \_\_\_\_ these paper sculptures, but the teacher didn't let me know that I was thinking differently until the end [when] we had our final project-do and mine was this huge like clock that had numbers coming off into the air [iv] \_\_\_\_ and everyone else had cardboard and paper and I was like... felt really embarrassed, and then they told me "Actually, this is great. Let's encourage it. You think differently, so embrace that." So I think that I kind of have a natural tendency towards visual kind of...inventions (laughs). But, [v] \_\_\_\_ in high school I kind of really decided I wanted to pursue going to art school. And from there, I kind of felt like it was no turning back [sic], which I think was stubborn, but that is sort of how you have to be an artist.

Transcribed from: "Shara Hughes Interview: Changing the Way We See."

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 90 Question Id : 640653738215 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

Fill in blank [i] with the most fitting discourse marker among the options given below.

**Options :**

6406532470354. ✘ Wow

6406532470355. ✘ Overall

6406532470356. ✓ Well

6406532470357. ✘ Absolutely

**Question Number : 91 Question Id : 640653738216 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

Fill in blank [ii] with the most fitting discourse marker among the options given below.

**Options :**

6406532470358. ✘ Okay

6406532470359. ✓ So I feel like

6406532470360. ✘ In other words

6406532470361. ✘ I see

**Question Number : 92 Question Id : 640653738217 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

Fill in blank [iii] with the most fitting discourse marker among the options given below.

**Options :**

6406532470362. ✓ Sort of like

6406532470363. ✖ Hands down

6406532470364. ✖ All in all

6406532470365. ✖ Overall

**Question Number : 93 Question Id : 640653738218 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

Fill in blank [iv] with the most fitting discourse marker among the options given below.

**Options :**

6406532470366. ✖ In a nutshell

6406532470367. ✖ So I guess

6406532470368. ✖ To my knowledge

6406532470369. ✓ And everything

**Question Number : 94 Question Id : 640653738219 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

Fill in blank [v] with the most fitting discourse marker among the options given below.

**Options :**

6406532470370. ✖ Amazing

6406532470371. ✖ I don't think

6406532470372. ✓ I think maybe like later on

6406532470373. ❌ I don't suppose

<b>Sub-Section Number :</b>	3
<b>Sub-Section Id :</b>	640653107944
<b>Question Shuffling Allowed :</b>	Yes
<b>Is Section Default? :</b>	null

**Question Number : 95 Question Id : 640653738220 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

*He assigned me an incomplete task.* The number of complements in this sentence is/are

**Options :**

6406532470374. ❌ One

6406532470375. ✓ Two

6406532470376. ❌ Three

6406532470377. ❌ Zero

**Question Number : 96 Question Id : 640653738221 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

*'Richard sits on his couch and broods.'*

This sentence is in:

**Options :**

6406532470378. ❌ Present perfect tense

6406532470379. ❌ Simple past tense

6406532470380. ❌ Past perfect tense

6406532470381. ✓ Simple present tense

**Question Number : 97 Question Id : 640653738222 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 the sentence '*The wind was touching the surface of the Thames and carrying the cold water into the sky in a fine and driving spray*', the suffix -ing added to the verb 'touch' indicates:

**Options :**

6406532470382. ❌ The indefiniteness of the action of touching

6406532470383. ✓ The continuity of the action of touching in past time

6406532470384. ❌ The continuity of the action of touching in future time

6406532470385. ❌ The indefiniteness of the action of touching in past time

**Question Number : 98 Question Id : 640653738223 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

Identify the adjectival clause in the following sentence and the noun it modifies.

*The book, which was written by a famous author, became a bestseller.*

**Options :**

6406532470386. ✓ Adjectival clause: which was written by a famous author, Noun: book

6406532470387. ❌ Adjectival clause: became a bestseller, Noun: book

6406532470388. ❌ Adjectival clause: which was written by a famous author, Noun: author

6406532470389. ❌ None of these

**Question Number : 99 Question Id : 640653738224 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 the following sentence, identify the nature of the adjective. The adjective is underlined.

'Racewalking is faster than normal walking.'

**Options :**

6406532470390. ❌ Adjunctive, imaginative

6406532470391. ❌ Innovative, attributive

6406532470392. ✓ Predicative, attributive

6406532470393. ❌ Predicative, indicative

**Sub-Section Number :** 4

**Sub-Section Id :** 640653107945

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 100 Question Id : 640653738225 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 implied meaning of the sentences below: (Note that the word with stress is marked in

**bold).**

John used to go to **church** on Sundays

**Options :**

6406532470394. ✓ John used to go to church on Sundays, not to restaurants

6406532470395. ✗ It is John who used to go to church on Sundays, not Mary

6406532470396. ✗ John used to go to church on Sundays, not Mondays

6406532470397. ✗ None of these

**Question Number : 101 Question Id : 640653738226 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 correct statements from the following

- (i) Intonation helps in expressing emotions
- (ii) Intonation is responsible for pitch variation
- (iii) Intonation is responsible for correct tense
- (iv) Intonation denotes agreement

**Options :**

6406532470398. ✗ (i), (ii) and (iii) only

6406532470399. ✓ (i) and (ii) only

6406532470400. ✗ (ii), (iii) and (iv) only

6406532470401. ✗ All of these

**Question Number : 102 Question Id : 640653738227 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 shall not flag or fail. We shall go on to the end. We shall fight in France, we shall fight on the seas and oceans, we shall fight with growing confidence and growing strength in the air...' is an example of \_\_\_\_\_.

**Options :**

6406532470402. ✘ Assonance

6406532470403. ✓ Anaphora

6406532470404. ✘ Sibilance

6406532470405. ✘ Hyperbole

**Question Number : 103 Question Id : 640653738228 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 heart of stone" is an example of?

**Options :**

6406532470406. ✘ Personification

6406532470407. ✘ Alliteration

6406532470408. ✓ Metaphor

6406532470409. ✘ Simile

**Question Number : 104 Question Id : 640653738229 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

'Life is much too important to be taken seriously.' The figure of speech used here is

**Options :**

6406532470410. ❌ Personification

6406532470411. ❌ Simile

6406532470412. ❌ Metaphor

6406532470413. ✓ Paradox

**Question Number : 105 Question Id : 640653738230 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

'Old Marley was as dead as a doornail' is an example of simile. This statement is \_\_\_\_.

**Options :**

6406532470414. ✓ True

6406532470415. ❌ False

**Question Number : 106 Question Id : 640653738231 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

Discourse marker 'overall' occurs in the \_\_\_\_ position.

**Options :**

6406532470416. ✓ Initial

6406532470417. ❌ Middle

6406532470418. ✘ Final

6406532470419. ✘ Both Initial and Middle

**Question Number : 107 Question Id : 640653738232 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 did not clear the exam and, as a result, he could not apply for that job.' Here the discourse marker is \_\_\_\_.

**Options :**

6406532470420. ✘ Did not clear

6406532470421. ✓ As a result

6406532470422. ✘ Could not

6406532470423. ✘ No discourse marker

**Question Number : 108 Question Id : 640653738233 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 sentences uses discourse markers to begin a conversation?

**Options :**

6406532470424. ✓ So, I wanted to talk to you about something

6406532470425. ✘ I bought a car yesterday. I mean, I'm paying for it in instalments

6406532470426. ✘ There was an accident on ECR yesterday and he was there apparently

6406532470427. ✘ It was hands down one of the worst performances I've seen in my life

**Question Number : 109 Question Id : 640653738234 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 everyday conversation, it would be very difficult to guess the emotions of a person if there were no modulations such as intonation and stress.

**Options :**

6406532470428. ✓ True

6406532470429. ✗ False

**Question Number : 110 Question Id : 640653738241 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 adverb in the following sentence.

*Rani is playing soulfully.*

**Options :**

6406532470450. ✗ Playing

6406532470451. ✗ Is playing

6406532470452. ✓ Soulfully

6406532470453. ✗ Is playing soulfully

**Question Number : 111 Question Id : 640653738242 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 adverb in the following sentence.

*My child is not sleeping.*

**Options :**

6406532470454. ❌ Is not

6406532470455. ❌ Is not sleeping

6406532470456. ✓ Not

6406532470457. ❌ My

**Question Number : 112 Question Id : 640653738243 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 degree adverb/adverbs in the given sentence.

*'She must really be made to tell.'*

**Options :**

6406532470458. ❌ Be

6406532470459. ❌ Made

6406532470460. ❌ Must

6406532470461. ✓ Really

**Question Number : 113 Question Id : 640653738244 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: 'Very' cannot be used before verbs

B: 'Very' can be used before some verbs

**Options :**

6406532470462. ✓ A is true and B is false

6406532470463. ✗ A is false and B is true

6406532470464. ✗ Both A and B are true

6406532470465. ✗ Both A and B are false

**Question Number : 114 Question Id : 640653738245 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

Fill in the blank.

*What he said was \_\_\_ incorrect.*

**Options :**

6406532470466. ✗ Logically

6406532470467. ✗ Scientifically

6406532470468. ✗ Technically

6406532470469. ✓ All of these

**Question Number : 115 Question Id : 640653738246 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 following lists of words, identify the words most likely to be adjectives based on word endings.

Music, musical, musician, muse

**Options :**

6406532470470. ❌ Muse

6406532470471. ✓ Musical

6406532470472. ❌ Music

6406532470473. ❌ Musician

**Question Number : 116 Question Id : 640653738247 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

'Sajal takes the medal.' In this sentence, the verb 'take' will change to \_\_\_\_\_ when converted to passive voice.

**Options :**

6406532470474. ❌ Will take

6406532470475. ✓ Is taken

6406532470476. ❌ Was taken

6406532470477. ❌ Were taken

**Question Number : 117 Question Id : 640653738248 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

"Although it was late, she decided to finish her work" is a \_\_\_\_ sentence.

**Options :**

6406532470478. ✘ Simple

6406532470479. ✘ Compound

6406532470480. ✓ Complex

**Question Number : 118 Question Id : 640653738249 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 adverbial clause in the sentence: "Although she was tired, she continued to work on her project."

**Options :**

6406532470481. ✓ Although she was tired

6406532470482. ✘ She continued

6406532470483. ✘ To work on her project

6406532470484. ✘ On her project

**Question Number : 119 Question Id : 640653738250 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

*The articles that I bought yesterday are already damaged.* The relative pronoun here is \_\_\_\_.

**Options :**

6406532470485. ✓ That

6406532470486. ✗ I

6406532470487. ✗ Are

6406532470488. ✗ No relative pronoun

**Question Number : 120 Question Id : 640653738251 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 following sentence, identify the role of the embedded clause.

**'Whatever Arif has been telling us is all true.'**

**Options :**

6406532470489. ✗ Object

6406532470490. ✓ Subject

6406532470491. ✗ Adjunct

6406532470492. ✗ Adjective

**Question Number : 121 Question Id : 640653738252 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

How many dependent clauses are there in the sentence given below:

*The student missed the lecture*

**Options :**

6406532470493. ✓ 0

6406532470494. ✗ 1

6406532470495. ✗ 2

6406532470496. ✗ 3

**Question Number : 122 Question Id : 640653738253 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

State whether the underlined is an adjunct or a complement:

*I kept a copy of the document on my shelf.*

**Options :**

6406532470497. ✓ Adjunct

6406532470498. ✗ Complement

**Question Number : 123 Question Id : 640653738254 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

'Joe plays the guitar beautifully.' Here the adjunct is \_\_\_\_.

**Options :**

6406532470499. ✗ the guitar

6406532470500. ✓ beautifully

6406532470501. ✗ plays

6406532470502. ❀ no adjunct

**Question Number : 124 Question Id : 640653738255 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

"*The tree stumps had been worn smooth and comfortable by years of use.*"

The underlined phrase acts like an \_\_\_\_.

**Options :**

6406532470503. ❀ Adverb of frequency

6406532470504. ❀ Adverb of degree

6406532470505. ✓ Adverb of manner

6406532470506. ❀ Adverb of direction

**Sub-Section Number :** 5

**Sub-Section Id :** 640653107946

**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id : 640653738235 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 : (125 to 129)**

Question Label : Comprehension

(1)\_\_\_\_\_, what one remembers in life are those moments that have impacted us the most. In the end, most of our memories get distilled into a few strong and condensed images, smells, sounds, and sensations. (2)\_\_\_\_\_, only the most memorable ones remain. A beautiful scene at a city vista, a melodious tune from a gifted street musician, the smell of spring's first blossoms, or the warmth

you felt when you first held your baby. (3)\_\_\_\_\_, one should concentrate one's efforts to create core memories that last. Beautiful moments that cannot be taken away from us, even by disease or senility. (4)\_\_\_\_\_ we spend our lives trying to create such lasting memories and impressions for ourselves, we can claim to have led a fruitful life. We must lead our lives fully, (5)\_\_\_\_\_ we only have one life to spare.

Based on the above data, answer the given subquestions.

### **Sub questions**

**Question Number : 125 Question Id : 640653738236 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 correct answer for blank (1).

#### **Options :**

6406532470430. ✓ Ultimately

6406532470431. ✗ Because

6406532470432. ✗ After all

6406532470433. ✗ None of these

**Question Number : 126 Question Id : 640653738237 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 correct answer for blank (2).

#### **Options :**

6406532470434. ✗ In contrast

6406532470435.

✓ And

6406532470436. ✘ Even though

6406532470437. ✘ Insofar as

**Question Number : 127 Question Id : 640653738238 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 correct answer for blank (3).

**Options :**

6406532470438. ✘ Nevertheless

6406532470439. ✘ However

6406532470440. ✓ Therefore

6406532470441. ✘ But

**Question Number : 128 Question Id : 640653738239 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 correct answer for blank (4).

**Options :**

6406532470442. ✘ Ultimately

6406532470443. ✘ Nevertheless

6406532470444. ✘ Secondly

6406532470445. ✓ As long as

**Question Number : 129 Question Id : 640653738240 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 correct answer for blank (5).

**Options :**

6406532470446. ✓ Because

6406532470447. ✗ But

6406532470448. ✗ As ever

6406532470449. ✗ After all

## Sem2 Maths2

**Section Id :** 64065351399

**Section Number :** 6

**Section type :** Online

**Mandatory or Optional :** Mandatory

**Number of Questions :** 9

**Number of Questions to be attempted :** 9

**Section Marks :** 25

**Display Number Panel :** Yes

**Section Negative Marks :** 0

**Group All Questions :** No

**Enable Mark as Answered Mark for Review and** Yes

**Clear Response :**

**Maximum Instruction Time :** 0

**Sub-Section Number :** 1

<b>Sub-Section Id :</b>	640653107947
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Number : 130 Question Id : 640653738256 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 II: MATHEMATICS FOR DATA SCIENCE II (COMPUTER BASED EXAM)"**

**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 :**

6406532470507. ✓ YES

6406532470508. ✗ NO

<b>Sub-Section Number :</b>	2
<b>Sub-Section Id :</b>	640653107948
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Id : 640653738257 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 : (131 to 132)**

Question Label : Comprehension

Answer the given subquestions:

## Sub questions

**Question Number :** 131 **Question Id :** 640653738258 **Question Type :** SA **Calculator :** None

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

**Correct Marks :** 2

**Question Label :** Short Answer Question

Find the determinant of  $\begin{bmatrix} 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 \end{bmatrix}$ .

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

-1

**Question Number :** 132 **Question Id :** 640653738259 **Question Type :** SA **Calculator :** None

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

**Correct Marks :** 2

**Question Label :** Short Answer Question

Find the determinant of  $\begin{bmatrix} a & b & 0 & c \\ d & e & 5 & f \\ g & h & 4 & i \\ 0 & 0 & -5 & 0 \end{bmatrix}$  given

the determinant of the matrix  $\begin{bmatrix} a & b & c \\ d & e & f \\ g & h & i \end{bmatrix}$  is 2.

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

10

**Question Id : 640653738272 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 : (133 to 135)**

Question Label : Comprehension

Let  $V = \{(x, y, 5) : x, y \in \mathbb{R}\}$ . Let us define addition and scalar multiplication as follows:

*Addition* :  $(x_1, y_1, 5) + (x_2, y_2, 5) = (x_1 + x_2, y_1 + y_2, 5); (x_1, y_1, 5), (x_2, y_2, 5) \in V$

*Scalar multiplication* :  $c(x, y, 5) = (cx, cy, 5); (x, y, 5) \in V, c \in \mathbb{R}$

Answer the given subquestions with respect to the given information.

**Sub questions**

**Question Number : 133 Question Id : 640653738273 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

Is the set  $V$  closed under addition?

**Options :**

6406532470527. ✓ Yes

6406532470528. ✗ No

**Question Number : 134 Question Id : 640653738274 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

Is the set  $V$  closed under scalar multiplication?

**Options :**

6406532470529. ✓ Yes

6406532470530. ✗ No

**Question Number : 135 Question Id : 640653738275 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Which of the following is(are) correct?

**Options :**

$V$  has no zero element with respect

6406532470531. ✗ to the given addition.

$(0, 0, 0)$  is the zero element of  $V$  with

6406532470532. ✗ respect to the given addition.

$(0, 0, 5)$  is the zero element of  $V$  with

6406532470533. ✓ respect to the given addition.

For any real number  $c$ , we always

6406532470534. ✗ have  $c(0, 1, 5) = (0, 1, 5)$ .

For each element of  $v \in V$  and for

6406532470535. ✓ each pair  $a, b \in \mathbb{R}$ ,  $(a + b)v = av + bv$ .

**Sub-Section Number :**

3

**Sub-Section Id :**

640653107949

**Question Shuffling Allowed :**

No

**Is Section Default? :**

null

**Question Id : 640653738260 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 : (136 to 137)**

Question Label : Comprehension

Let  $A = \begin{bmatrix} 1 & \frac{1}{3} \\ c & d \end{bmatrix}$  such that  $A^2 = 0$ .

Based on the above data, answer the given subquestions.

### **Sub questions**

**Question Number : 136 Question Id : 640653738261 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1**

Question Label : Short Answer Question

Find the value of  $c$ .

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

-3

**Question Number : 137 Question Id : 640653738262 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1**

Question Label : Short Answer Question

Find the value of  $d$ .

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

-1

**Sub-Section Number :** 4

**Sub-Section Id :** 640653107950

**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id : 640653738263 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 : (138 to 139)**

Question Label : Comprehension

Consider the following system of linear equations:

$$\begin{aligned}2x - y + 3z &= 0 \\ax - y + z &= 0 \\4x - 2y + 7z &= 0\end{aligned}$$

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 138 Question Id : 640653738264 Question Type : SA Calculator : None**

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

**Correct Marks : 2**

Question Label : Short Answer Question

Does there exist an  $a$  such that the system has infinitely many solutions? If yes, find the value of  $a$ , else write the answer as 100.

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

2

**Question Number :** 139 **Question Id :** 640653738265 **Question Type :** SA **Calculator :** None

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

**Correct Marks :** 1

Question Label : Short Answer Question

Does there exist an  $a$  such that the system has no solution? If yes, find the value of  $a$ , else write the answer as 100.

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

100

**Question Id :** 640653738267 **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 :** (140 to 142)

Question Label : Comprehension

Consider the following subsets of  $M_{3 \times 3}(\mathbb{R})$ .

Based on the above data, answer the given subquestions.

## **Sub questions**

**Question Number : 140 Question Id : 640653738268 Question Type : SA Calculator : None**

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

**Correct Marks : 1**

Question Label : Short Answer Question

$$W_1 = \left\{ \begin{pmatrix} a & 0 & 0 \\ 0 & b & 0 \\ 0 & 0 & c \end{pmatrix} : a, b, c \in \mathbb{R} \text{ such that } a + b + c = 1 \right\}.$$

If  $W_1$  is a subspace, find the dimension else write the answer as 0.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

0

**Question Number : 141 Question Id : 640653738269 Question Type : SA Calculator : None**

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

**Correct Marks : 1**

Question Label : Short Answer Question

$$W_2 = \left\{ \begin{pmatrix} a & 0 & 0 \\ 0 & b & 0 \\ 0 & 0 & c \end{pmatrix} : a, b, c \in \mathbb{R} \text{ such that } a = b = c \right\}.$$

If  $W_2$  is a subspace, find the dimension else write the answer as 0.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

1

**Question Number : 142 Question Id : 640653738270 Question Type : SA Calculator : None**

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

**Correct Marks : 1**

**Question Label : Short Answer Question**

$$W_3 = \left\{ \begin{pmatrix} a & 0 & 0 \\ 0 & b & 0 \\ 0 & 0 & c \end{pmatrix} : a, b, c \in \mathbb{R} \right\}. \text{ If } W_3$$

is a subspace, find the dimension else  
write the answer as 0.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

3

**Question Id : 640653738276 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 : (143 to 145)**

**Question Label : Comprehension**

Let  $u = (1, 2, -1)^T$ ,  $v = (2, 1, 0)^T$  and  $w = (-1, 4, -3)^T$ . Let  $A \in M_{3 \times 3}(\mathbb{R})$  such that  $Au = u$  and  $Av = -v$ . If  $A^3w = (a, b, c)^T$ , then answer the given subquestions.

**Sub questions**

**Question Number : 143 Question Id : 640653738277 Question Type : SA Calculator : None**

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

**Correct Marks : 1**

Question Label : Short Answer Question

$a$  is equal to

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

7

**Question Number : 144 Question Id : 640653738278 Question Type : SA Calculator : None**

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

**Correct Marks : 1**

Question Label : Short Answer Question

$b$  is equal to

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

8

**Question Number : 145 Question Id : 640653738279 Question Type : SA Calculator : None**

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

**Correct Marks : 1**

Question Label : Short Answer Question

$c$  is equal to

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

-3

**Sub-Section Number :** 5

**Sub-Section Id :** 640653107951

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number :** 146 **Question Id :** 640653738266 **Question Type :** MSQ **Is Question**

**Mandatory :** No **Calculator :** None **Response Time :** N.A **Think Time :** N.A **Minimum Instruction Time :** 0

**Correct Marks :** 3 **Max. Selectable Options :** 0

Question Label : Multiple Select Question

Select all true statements.

**Options :**

6406532470515. ✓  $\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 2 \\ 0 & 0 & 0 & 0 \end{bmatrix}$  is in reduced row echelon form.

6406532470516. ✓ The reduced row echelon form of any square, invertible matrix is the identity matrix of the same order.

6406532470517. ✗ Elementary row operations can be performed only on square matrices.

6406532470518. ✗ If a matrix is in reduced row echelon form, its last row will always be a zero row.

**Question Number : 147 Question Id : 640653738271 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Consider the vectors  $v_1 = (1, -1, 0)$ ,  $v_2 = (2, 3, -1)$  and  $v_3 = (a, b, c)$  in  $\mathbb{R}^3$ . Choose the correct options from the following.

**Options :**

6406532470522. ✘ If  $a = 5, b = 0, c = -1$ , then the set  $\{v_1, v_2, v_3\}$  forms a basis for  $\mathbb{R}^3$ .

6406532470523. ✓ If  $a = 5, b = 0, c = -1$ , then the vectors  $\{v_1, v_2, v_3\}$  are linearly dependent.

If  $a = 5, b = 0, c = -1$  and  $A$  is the matrix with  $v_1, v_2$  and  $v_3$  as its columns, then  $\text{rank}(A) = 3$ .

6406532470525. ✓ If  $a = 2, b = 3, c = 1$ , then the subspace spanned by the vectors  $\{v_1, v_2, v_3\}$  has dimension 3.

6406532470526. ✓ If  $a = 2, b = 3, c = 1$  and  $A$  is the matrix with  $v_1, v_2$  and  $v_3$  as its columns, then  $A$  is invertible.

## Sem2 Statistics2

**Section Id :** 64065351400

**Section Number :** 7

**Section type :** Online

<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	12
<b>Number of Questions to be attempted :</b>	12
<b>Section Marks :</b>	40
<b>Display Number Panel :</b>	Yes
<b>Section Negative Marks :</b>	0
<b>Group All Questions :</b>	No
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Maximum Instruction Time :</b>	0
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	640653107952
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Number : 148 Question Id : 640653738280 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 II: STATISTICS FOR DATA SCIENCE II (COMPUTER BASED EXAM)"**

**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 :**

6406532470539. ✓ YES

6406532470540. ✘ NO

**Question Number : 149 Question Id : 640653738281 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**

Discrete random variables:

Distribution	PMF ( $f_X(k)$ )	CDF ( $F_X(x)$ )	$E[X]$	$\text{Var}(X)$
Uniform( $A$ ) $A = \{a, a+1, \dots, b\}$	$\frac{1}{n}, \quad x = k$ $n = b - a + 1$ $k = a, a+1, \dots, b$	$\begin{cases} 0 & x < 0 \\ \frac{k-a+1}{n} & k \leq x < k+1 \\ 1 & k = a, a+1, \dots, b-1, b \\ 1 & x \geq n \end{cases}$	$\frac{a+b}{2}$	$\frac{n^2-1}{12}$
Bernoulli( $p$ )	$\begin{cases} p & x = 1 \\ 1-p & x = 0 \end{cases}$	$\begin{cases} 0 & x < 0 \\ 1-p & 0 \leq x < 1 \\ 1 & x \geq 1 \end{cases}$	$p$	$p(1-p)$
Binomial( $n, p$ )	${}^n C_k p^k (1-p)^{n-k}, \quad k = 0, 1, \dots, n$	$\begin{cases} 0 & x < 0 \\ \sum_{i=0}^k {}^n C_i p^i (1-p)^{n-i} & k \leq x < k+1 \\ 1 & k = 0, 1, \dots, n \\ 1 & x \geq n \end{cases}$	$np$	$np(1-p)$
Geometric( $p$ )	$(1-p)^{k-1} p, \quad k = 1, \dots, \infty$	$\begin{cases} 0 & x < 0 \\ 1 - (1-p)^k & k \leq x < k+1 \\ 1 & k = 1, \dots, \infty \end{cases}$	$\frac{1}{p}$	$\frac{1-p}{p^2}$
Poisson( $\lambda$ )	$\frac{e^{-\lambda} \lambda^k}{k!}, \quad k = 0, 1, \dots, \infty$	$\begin{cases} 0 & x < 0 \\ e^{-\lambda} \sum_{i=0}^k \frac{\lambda^i}{i!} & k \leq x < k+1 \\ 1 & k = 0, 1, \dots, \infty \end{cases}$	$\lambda$	$\lambda$

## Continuous random variables:

Distribution	PDF ( $f_X(k)$ )	CDF ( $F_X(x)$ )	$E[X]$	$\text{Var}(X)$
Uniform $[a, b]$	$\frac{1}{b-a}, a \leq x \leq b$	$\begin{cases} 0 & x \leq a \\ \frac{x-a}{b-a} & a < x < b \\ 1 & x \geq b \end{cases}$	$\frac{a+b}{2}$	$\frac{(b-a)^2}{12}$
Exp( $\lambda$ )	$\lambda e^{-\lambda x}, x > 0$	$\begin{cases} 0 & x \leq 0 \\ 1 - e^{-\lambda x} & x > 0 \end{cases}$	$\frac{1}{\lambda}$	$\frac{1}{\lambda^2}$
Normal( $\mu, \sigma^2$ )	$\frac{1}{\sigma\sqrt{2\pi}} \exp\left(\frac{-(x-\mu)^2}{2\sigma^2}\right),$ $-\infty < x < \infty$	No closed form	$\mu$	$\sigma^2$
Gamma( $\alpha, \beta$ )	$\frac{\beta^\alpha}{\Gamma(\alpha)} x^{\alpha-1} e^{-\beta x}, x > 0$		$\frac{\alpha}{\beta}$	$\frac{\alpha}{\beta^2}$
Beta( $\alpha, \beta$ )	$\frac{\Gamma(\alpha+\beta)}{\Gamma(\alpha)\Gamma(\beta)} x^{\alpha-1} (1-x)^{\beta-1}$ $0 < x < 1$		$\frac{\alpha}{\alpha+\beta}$	$\frac{\alpha\beta}{(\alpha+\beta)^2(\alpha+\beta+1)}$

1. Markov's inequality: Let  $X$  be a discrete random variable taking non-negative values with a finite mean  $\mu$ . Then,

$$P(X \geq c) \leq \frac{\mu}{c}$$

2. Chebyshev's inequality: Let  $X$  be a discrete random variable with a finite mean  $\mu$  and a finite variance  $\sigma^2$ . Then,

$$P(|X - \mu| \geq k\sigma) \leq \frac{1}{k^2}$$

### Options :

6406532470541. ✓ Useful Data has been mentioned above.

6406532470542. ❌ This data attachment is just for a reference & not for an evaluation.

**Sub-Section Number :** 2

**Sub-Section Id :** 640653107953

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 150 Question Id : 640653738282 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

Naveen tosses a fair coin twice and Suman tosses another fair coin two times. Let the random variables  $X$  and  $Y$  denote the number of heads observed by Naveen and Suman respectively. Identify the correct joint PMF table of  $X$  and  $Y$ .

**Options :**

$\backslash$ $Y$	0	1	2
0	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{8}$
1	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{8}$
2	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{16}$

6406532470543. ✘

$\backslash$ $Y$	0	1	2
0	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{16}$
1	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{8}$
2	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{16}$

6406532470544. ✓

$\backslash$ $Y$	0	1	2
0	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{8}$
1	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{16}$
2	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{16}$

6406532470545. ✘

6406532470546. ✘

$X \backslash Y$	1	2
1	$\frac{1}{4}$	$\frac{1}{4}$
2	$\frac{1}{4}$	$\frac{1}{4}$

**Question Number : 151 Question Id : 640653738286 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

Suppose  $X$  and  $Y$  are independent random variables with means 10 and 20, and variances 2 and 4, respectively. Find the value of  $\text{Var}(XY)$ .

Hint: If  $X$  and  $Y$  are independent, then  $X^2$  and  $Y^2$  are also independent.

**Options :**

6406532470552. ✘ 0

6406532470553. ✘ 40000

6406532470554. ✓ 1208

6406532470555. ✘ Cannot be determined

**Question Number : 152 Question Id : 640653738288 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 CDF of a random variable  $X$  is given as

$$F_X(x) = \begin{cases} 1 - e^{-4x}, & x \geq 0, \\ 0, & \text{otherwise.} \end{cases}$$

What is the value of  $P(-4 < X \leq 6)$ ?

**Options :**

6406532470557. ✘  $e^{-20} - e^{-24}$

6406532470558. ✓  $1 - e^{-24}$

6406532470559. ✘  $e^{-24} - e^{-20}$

6406532470560. ✘  $e^{-24}$

**Sub-Section Number :** 3

**Sub-Section Id :** 640653107954

**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id : 640653738283 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 : (153 to 154)**

Question Label : Comprehension

An analyst is responsible for conducting emissions inspections on bikes. During the inspections, the analyst found that 10% of the bikes fail the inspection. Let  $X$  be a geometric variable which denotes the number of bikes the analyst inspects until a bike fails an inspection. Assume that the results of each inspection are independent.

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 153 Question Id : 640653738284 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

What is the range of  $X$ ?

**Options :**

6406532470547. ❌  $T_X = \{0, 1, 2, \dots\}$

6406532470548. ✓  $T_X = \{1, 2, \dots\}$

6406532470549. ❌  $T_X = \{1, 2, \dots, 100\}$

6406532470550. ❌  $T_X = \{0, 1\}$

**Question Number : 154 Question Id : 640653738285 Question Type : SA Calculator : None**

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

**Correct Marks : 2**

Question Label : Short Answer Question

What is the probability that the first failed inspection occurs on the analyst's 5<sup>th</sup> inspection? Enter the answer correct to three decimal places.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Range**

**Text Areas : PlainText**

**Possible Answers :**

0.046 to 0.086

**Sub-Section Number :** 4

**Sub-Section Id :** 640653107955

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

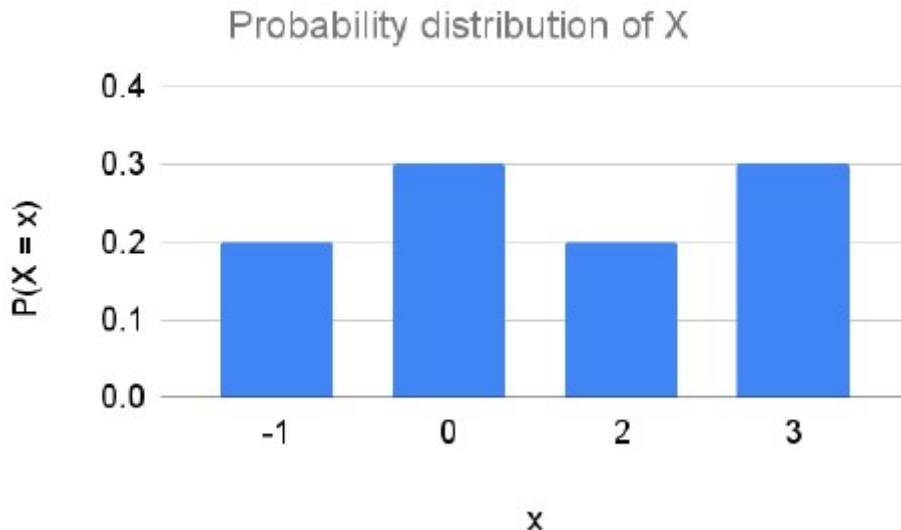
**Question Number : 155 Question Id : 640653738287 Question Type : SA Calculator : None**

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

**Correct Marks : 3**

**Question Label : Short Answer Question**

The probability distribution of a discrete random variable  $X$  is given as below:



Calculate the expected value of  $X$ . Enter the answer correct to one decimal place.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

**1.1**

**Sub-Section Number :** 5

**Sub-Section Id :** 640653107956

**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id : 640653738289 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 : (156 to 157)**

Question Label : Comprehension

Let  $X$  and  $Y$  be i.i.d. Uniform  $\{-1, 0, 1\}$ . Define a new random variable  $Z = |X + Y|$ , where  $| . |$  denotes the absolute value.

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 156 Question Id : 640653738290 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

Find the PMF of  $Z$ .

**Options :**

$z$	0	1	2
$f(z)$	1/3	1/3	1/3

6406532470561. ❌

$z$	0	1	2
$f(z)$	1/3	4/9	2/9

6406532470562. ✓

$z$	0	1	2
$f(z)$	2/9	4/9	1/3

6406532470563. ❌

6406532470564. ❌

$z$	0	1
$f(z)$	1/2	1/2

**Question Number : 157 Question Id : 640653738291 Question Type : SA Calculator : None**

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

**Correct Marks : 2**

Question Label : Short Answer Question

Find the value of  $P(X = 0 | Z = 1)$ . Enter the answer correct to one decimal place.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Range**

**Text Areas : PlainText**

**Possible Answers :**

0.4 to 0.6

**Question Id : 640653738292 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 : (158 to 159)**

Question Label : Comprehension

Kunal and Sanskriti are playing a game. Kunal will roll a fair six-sided die, and Sanskriti will flip a fair coin as many times as the number shown on the die. Let  $X$  represent the number displayed on the die, and  $Y$  represent the number of heads obtained by Sanskriti.

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 158 Question Id : 640653738293 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 3 Max. Selectable Options : 0**

Question Label : Multiple Select Question

If  $X = 5$ , then which of the following options are true?

**Options :**

6406532470566. ❌ Range of  $(Y|X = 5) = \{1, 2, 3, 4, 5, 6\}$

6406532470567. ✓ Range of  $(Y|X = 5) = \{0, 1, 2, 3, 4, 5\}$

6406532470568. ❌  $(Y|X = 5) \sim \text{Binomial}\left(5, \frac{1}{6}\right)$

6406532470569. ✓  $(Y|X = 5) \sim \text{Binomial}\left(5, \frac{1}{2}\right)$

**Question Number : 159 Question Id : 640653738294 Question Type : SA Calculator : None**

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

**Correct Marks : 2**

Question Label : Short Answer Question

Find the value of  $P(Y = 1|X = 5)$ . Enter the answer correct to two decimal places.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Range**

**Text Areas : PlainText**

**Possible Answers :**

**Question Id : 640653738295 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 : (160 to 161)**

Question Label : Comprehension

A fair die is thrown two times independently. Let

$X_1$  represent the number obtained in the 1st throw,

$X_2$  represent the number obtained in the 2nd throw,

Define a new random variable  $Z$  such that

$$Z = \max(X_1, X_2)$$

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 160 Question Id : 640653738296 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

Find the value of  $P(Z \leq 3)$ .

**Options :**

6406532470571. ✓  $\frac{1}{4}$

6406532470572. ✗  $\frac{1}{2}$

6406532470573. ✗  $\frac{3}{4}$

6406532470574. \*  $\frac{1}{8}$

**Question Number : 161 Question Id : 640653738297 Question Type : SA Calculator : None**

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

**Correct Marks : 2**

Question Label : Short Answer Question

If  $P(Z = 4) = \frac{a}{36}$ , what is the value of  $a$ ?

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

7

**Question Id : 640653738298 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 : (162 to 163)**

Question Label : Comprehension

Suppose that a random variable  $X$  denotes the number of items produced in a factory during a week with mean 50 and variance 25.

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 162 Question Id : 640653738299 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

Using Markov's inequality, find a bound on the probability that this week's production will exceed 74.

**Options :**

6406532470576. ❌  $P(X \geq 74) \geq \frac{25}{37}$

6406532470577. ❌  $P(X \geq 75) > \frac{2}{3}$

6406532470578. ✓  $P(X \geq 75) \leq \frac{2}{3}$

6406532470579. ❌  $P(X \geq 74) < \frac{25}{37}$

**Question Number : 163 Question Id : 640653738300 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

Using Chebyshev's inequality, find a lower bound on the probability that this week's production will be between 40 and 60. Enter the answer correct to two decimal places.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Range**

**Text Areas : PlainText**

**Possible Answers :**

0.72 to 0.78

**Question Id : 640653738301 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 : (164 to 165)**

Question Label : Comprehension

The probability density function of a random variable  $X$  is given as

$$f_X(x) = \begin{cases} \frac{1}{10}, & 0 \leq x < 1, \\ kx, & 1 \leq x < 2, \\ \frac{3}{10}, & 2 \leq x < 3, \\ 0, & \text{otherwise.} \end{cases}$$

Based on the above data, answer the given subquestions.

**Sub questions**

**Question Number : 164 Question Id : 640653738302 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2**

Question Label : Short Answer Question

Find the value of  $k$ . Enter the answer correct to one decimal place.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

0.4

**Question Number : 165 Question Id : 640653738303 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 value of  $P(1 < X < 2.5)$ ? Enter the answer correct to two decimal places.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Range**

**Text Areas : PlainText**

**Possible Answers :**

0.72 to 0.78

## Sem2 Intro to Python

**Section Id :** 64065351401

**Section Number :** 8

**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

**Section Negative Marks :** 0

**Group All Questions :** No

**Enable Mark as Answered Mark for Review and Clear Response :** Yes

**Maximum Instruction Time :** 0

**Sub-Section Number :** 1

<b>Sub-Section Id :</b>	640653107957
<b>Question Shuffling Allowed :</b>	No
<b>Is Section Default? :</b>	null

**Question Number : 166 Question Id : 640653738304 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 II:  
INTRODUCTION TO PYTHON (COMPUTER BASED EXAM)"**

**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 :**

6406532470583. ✓ YES

6406532470584. ✗ NO

**Question Number : 167 Question Id : 640653738305 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

# Useful Data

## Presentation

There are two types of blocks that you would see in all the questions:

### Code

```
1 | for i in range(10):  
2 |     if i % 2 == 0:  
3 |         print(i)
```

### Input or Output

```
1 | 0  
2 | 2  
3 | 4  
4 | 6  
5 | 8
```

In both the blocks, please note that the region to the left of the thin vertical line — | — corresponds to line-numbers. Do not confuse the line numbers with the content of the code or the input-output. Just to be clear:

Line Numbers ← → Code/Input/Output

```
1 | 0  
2 | 2  
3 | 4  
4 | 6  
5 | 8
```

## Useful information

### range

Sample behaviour of the range function:

- `range(5)` corresponds to the sequence `0, 1, 2, 3, 4`
- `range(1, 5)` corresponds to the sequence `1, 2, 3, 4`
- `range(1, 1)` is the empty sequence

### // operator

`//` is the floor division operator. `5 // 2` is `2` and *not* `2.5`

### NAT → integer

For all NAT questions in this exam, the answer will always be an integer and not a float value. If the answer to a question is `18`, then just enter that value. Do *not* enter `18.0`

### Options :

6406532470585. ✓ Useful Data has been mentioned above.

6406532470586. ❗ This data attachment is just for a reference & not for an evaluation.

**Sub-Section Number :** 2

**Sub-Section Id :** 640653107958

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 168 Question Id : 640653738306 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**

Consider a program that accepts a word as input from the user and prints the number of vowels in it. You can assume that the input will be given in lower case.

## Snippet - 1

```
1 word = input()
2 count = 0
3 for char in word:
4     if char in ['a', 'e', 'i', 'o', 'u']:
5         count = count + 1
6 print(count)
```

## Snippet - 2

```
1 word = input()
2 count = 0
3 for char in word:
4     if char in 'aeiou':
5         count = count + 1
6 print(count)
```

Which of these two snippets is correct?

**Options :**

6406532470587. ❌ Only snippet-1 is correct

6406532470588. ❌ Only snippet-2 is correct

6406532470589. ✓ Both snippets 1 and 2 are correct

6406532470590. ❌ Both snippets 1 and 2 are incorrect

**Question Number : 169 Question Id : 640653738307 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

We wish to print the following pattern:

```
1 11111  
2 10001  
3 10001  
4 10001  
5 11111
```

Which of these two snippets is correct?

### Snippet - 1

```
1 n = 5  
2 one = '1'      # len(one) == 1  
3 zero = '0'     # len(zero) == 1  
4 for i in range(n):  
5     if i == 0 or i == n - 1:  
6         print(one * n)  
7     else:  
8         print(one + zero * (n - 2) + one)
```

### Snippet - 2

```
1 n = 5  
2 one = '1'      # len(one) == 1  
3 zero = '0'     # len(zero) == 1  
4 for i in range(n):  
5     for j in range(n):  
6         if j == 0 or j == n - 1:  
7             print(zero, end = '') # an empty string is passed to end  
8         else:  
9             print(one, end = '') # an empty string is passed to end  
10    print()
```

Tip

Some code snippet

```
1 print('1', end = '') # an empty string is passed to end
2 print('2', end = '') # an empty string is passed to end
3 print()
4 print('3' * 5)
```

Output of the above snippet

```
1 12
2 33333
```

**Options :**

6406532470591. ✓ Only snippet-1 is correct

6406532470592. ✗ Only snippet-2 is correct

6406532470593. ✗ Both snippets 1 and 2 are correct

6406532470594. ✗ Both snippets 1 and 2 are incorrect

**Question Number : 170 Question Id : 640653738308 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

Which of the code snippets given below computes the minimum of three integers, not necessarily distinct from each other?

## Snippet - 1

```
1 a, b, c = int(input()), int(input()), int(input())
2 if (a <= b <= c) or (a <= c <= b):
3     print(a)
4 if (b <= a <= c) or (b <= c <= a):
5     print(b)
6 else:
7     print(c)
```

## Snippet - 2

```
1 a, b, c = int(input()), int(input()), int(input())
2 if (a < b < c) or (a < c < b):
3     print(a)
4 if (b < a < c) or (b < c < a):
5     print(b)
6 if (c < a < b) or (c < b < a):
7     print(c)
```

Note that the correct code snippet should have *exactly one line in the output*, which displays the minimum of  $a, b$  and  $c$ .

### Options :

6406532470595. ✘ Only snippet-1 is correct

6406532470596. ✘ Only snippet-2 is correct

6406532470597. ✘ Both snippets 1 and 2 are correct

6406532470598. ✓ Both snippets 1 and 2 are incorrect

**Sub-Section Number :** 3

**Sub-Section Id :** 640653107959

**Question Shuffling Allowed :** Yes

**Is Section Default? :** null

**Question Number : 171 Question Id : 640653738309 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Max. Selectable Options : 0**

### Question Label : Multiple Select Question

Select all values of `M` for which the following snippet of code prints the value `True`.

```
1 # M is a list of lists
2 n = len(M)
3
4 flag = True
5 for i in range(n):
6     for j in range(i):
7         if M[i][j] != 0:
8             flag = False
9
10 if flag:
11     print('True')
12 else:
13     print('False')
```

### Options :

6406532470599. ✓ 1 | [[1, 3, 0, 5], [0, 2, -2, 5], [0, 0, 3, 1], [0, 0, 0, 5]]

6406532470600. ✓ 1 | [[10, 20, 30], [0, 3, 4], [0, 0, -3]]

6406532470601. ✘ 1 | [[1, 0, 0, 0], [4, 10, 0, 0], [3, -1, -2, 0], [10, -3, 4, 5]]

6406532470602. ✘ 1 | [[0, 1, -1], [-2, 0, 4], [-1, -4, 0]]

**Question Number : 172 Question Id : 640653738310 Question Type : MSQ Is Question**

**Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 4 Max. Selectable Options : 0**

Question Label : Multiple Select Question

Select all inputs for which the code below prints the value `True`.

```
1 sentence = input()
2 # all letters in alpha are in lower case
3 alpha = 'abcdefghijklmnopqrstuvwxyz'
4
5 surprise = True
6 for char in alpha:
7     if char not in sentence:
8         surprise = False
9     break
10
11 print(surprise)
```

Each input is a sentence with a space between consecutive words, all of which are in lower case.

**Options :**

6406532470603. ✓ 1 | the quick brown fox jumps over the lazy dog

6406532470604. ✓ 1 | how vexingly quick daft zebras jump

6406532470605. ✗ 1 | this is a remarkable property

6406532470606. ✗ 1 | pack my box with five dozen chips packets

**Sub-Section Number :**

4

**Sub-Section Id :**

640653107960

**Question Shuffling Allowed :**

Yes

**Is Section Default? :**

null

**Question Number : 173 Question Id : 640653738311 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 is the output of the following snippet of code? Enter an integer as your answer.

```
1 first = 3
2 second = 9
3
4 i = 2
5 while i <= 5:
6     next_term = first + second
7     first = second
8     second = next_term
9     i += 1
10
11 print(second)
```

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

54

**Question Number :** 174 **Question Id :** 640653738312 **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 is the output of the following snippet of code? Enter an integer as your answer.

```
1 word = '12794'
2 out = '' # this is an empty string
3
4 i = len(word) - 1
5 while i >= 0:
6     out += word[i]
7     i -= 1
8
9 print(int(out))
```

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

49721

**Question Number :** 175 **Question Id :** 640653738313 **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

Consider the following snippet of code.

```
1 word_1 = input()
2 word_2 = input()
3 word_3 = input()
4 word_4 = input()
5
6 level = 0
7 if word_1 in word_2:
8     level = level + 1
9     if word_2 in word_3:
10         level = level + 1
11         if word_3 in word_4:
12             level = level + 1
13
14 print(level)
```

Consider the following inputs.

Input	Output
be abel abeliangroup group	a
abc abc abc abc	b
group gro ro r	c
phenomenon phenomenons non on	d

If  $a, b, c, d$  are the outputs produced for each of these four inputs, form the four digit number  $abcd$  and enter that as your answer. For example, if  $a = 1, b = 2, c = 3, d = 4$ , your answer should be 1234.

**Response Type :** Numeric

**Evaluation Required For SA :** Yes

**Show Word Count :** Yes

**Answers Type :** Equal

**Text Areas :** PlainText

**Possible Answers :**

**Question Number : 176 Question Id : 640653738314 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 is the output of the following snippet of code?

```

1 | L = ['2', '370', '1234', '1634', '38', '100']
2 | count = 0
3 |
4 | for num in L:
5 |     val = 0
6 |     for x in num:
7 |         val = val + (int(x) ** len(num))
8 |     if val == int(num):
9 |         count = count + 1
10|
11| print(count)

```

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

3

**Sub-Section Number :** 5

**Sub-Section Id :** 640653107961

**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id : 640653738321 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 : (177 to 178)**

Question Label : Comprehension

Consider the following snippet of code.

```
1 a = int(input())
2 b = int(input())
3 string = 'IAmAnIndianCitizen'
4 print(string[a:b])
```

The output of this code is Indian.

Based on the above data, answer the given subquestions.

#### **Sub questions**

**Question Number : 177 Question Id : 640653738322 Question Type : SA Calculator : None**

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

**Correct Marks : 1**

Question Label : Short Answer Question

What is the value of  $a$ , the first input entered by the user, if it is given that the user entered a positive integer?

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

5

**Question Number : 178 Question Id : 640653738323 Question Type : SA Calculator : None**

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

**Correct Marks : 1**

Question Label : Short Answer Question

What is the value of  $b$  , the second input entered by the user, if it is given that the user entered a positive integer?

**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 :** 640653107962

**Question Shuffling Allowed :** No

**Is Section Default? :** null

**Question Id :** 640653738315 **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 :** (179 to 180)

**Question Label :** Comprehension

Execute the following snippet of code and answer the two sub-questions that follow:

```
1 | L = [4, 1, 3, 2, 4, 0, 4, 3, 1, 3, 4]
2 |
3 | n = max(L) # finds the maximum element in L
4 | P = [ ]
5 | for x in range(n + 1):
6 |     P.append(0)
7 |
8 | for x in L:
9 |     P[x] += 1
10 | print(P)
11 #####
12 #####
13 |
14 | mnum, mval = 0, P[0]
15 | for i in range(len(P)):
16 |     if P[i] > mval:
17 |         mval = P[i]
18 |         mnum = i
19 |
20 | print(mnum)
```

## Sub questions

**Question Number : 179 Question Id : 640653738316 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 first line of output?

**Options :**

1 | [4, 1, 3, 2, 4, 0, 4, 3, 1, 3, 4]

6406532470611. ✘

1 | [0, 1, 2, 3, 4]

6406532470612. ✘

1 | [0, 0, 0, 0, 0]

6406532470613. ✘

1 | [1, 2, 1, 3, 4]

6406532470614. ✓

**Question Number : 180 Question Id : 640653738317 Question Type : SA Calculator : None**

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

**Correct Marks : 2**

Question Label : Short Answer Question

What is the second line of the output? Enter an integer as your answer.

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

4

**Question Id : 640653738318 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 : (181 to 182)**

Question Label : Comprehension

Execute the following snippet of code and answer the subquestions that follow:

```
1 num = '1263.871945'
2 start = False
3 out = '' # empty string
4 loop_counter = 0
5 for x in num:
6     loop_counter = loop_counter + 1
7     if x == '.':
8         start = True
9         trunc = -1
10    if start:
11        trunc += 1
12        if trunc == 3:
13            break
14    out = out + x
15
16 print(loop_counter)
17 print(float(out))
```

## Sub questions

**Question Number : 181 Question Id : 640653738319 Question Type : SA Calculator : None**

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

**Correct Marks : 2**

Question Label : Short Answer Question

What is the first line of the output?

**Response Type : Numeric**

**Evaluation Required For SA : Yes**

**Show Word Count : Yes**

**Answers Type : Equal**

**Text Areas : PlainText**

**Possible Answers :**

8

**Question Number : 182 Question Id : 640653738320 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 second line of the output?

**Options :**

6406532470617. ✓ 1263.87

6406532470618. ✗ 1263

6406532470619. ✗ 1263.871

6406532470620. ✗ 1263.8719

**Question Id : 640653738324 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 : (183 to 184)**

Question Label : Comprehension

Execute the following snippet of code and answer all the subquestions that follow:

```
1 P = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]
2
3 Q = []
4 R = []
5 for i in range(len(P)):
6     x = 0
7     y = 0
8     for j in range(len(P)):
9         x = x + P[i][j]
10        y = y + P[j][i]
11    Q.append(x)
12    R.append(y)
13
14 print(Q)
15 print(R)
```

**Sub questions**

**Question Number : 183 Question Id : 640653738325 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 first line of the output?

**Options :**

6406532470623. ✓

1 | [6, 15, 24]

6406532470624. ✗

1 | [12, 15, 18]

6406532470625. ✗

1 | [1, 5, 9]

6406532470626. ✗

1 | [3, 5, 7]

**Question Number : 184 Question Id : 640653738326 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 second line of the output?

**Options :**

6406532470627. ✗

1 | [6, 15, 24]

6406532470628. ✓

1 | [12, 15, 18]

$1 \mid [1, 5, 9]$

6406532470629. ✎

$1 \mid [3, 5, 7]$

6406532470630. ✎