Question Paper Preview

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 :	IITM Online Foundation Qualifier Q1QP2 22 Nov 2020
Duration :	210
Number of Questions :	46
Total Marks :	200

English

Number of Questions :	5
Section Marks :	50

Mark As Answered Required? :   Yes

Question Numbers : (1 to 5)

Question Label : Comprehension

READING

Read the poem and answer the given subquestions.

Where The Mind Is Without Fear by Rabindranath Tagore

Where the mind is without fear and the head is held high;

Where knowledge is free;

Where the world has not been broken up into fragments

By narrow domestic walls

Where words come out from the depth of truth;

Where tireless striving stretches its arms towards perfection;

Where the clear stream of reason has not lost its way

Into the dreary desert sand of dead habit;

Where the mind is led forward by thee

Into ever-widening thought and action;

Into that heaven of freedom, my Father, let my country awake.

Sub questions

Question Number : 1

Correct Marks : 1

Question Label : Multiple Choice Question

What is the theme of this poem?

Options :

1. ✹ Identity

2. ✹ Death

3. ✔ Patriotism

4. ✳ Religion/Spirituality

Question Number : 2

Correct Marks : 1

Question Label : Multiple Choice Question

What do Line 7, 'Where the clear stream of reason has not lost its way' and Line 8, 'Into the dreary desert sand of dead habit' mean?

Options :

1. ✔ Tagore wishes the power of reason to be granted to his countrymen so that they can oust the outdated customs and traditions.

2. ✳ Tagore wanted national highways to be built.

3. ✳ Tagore wanted to link up all the rivers flowing in India.

4. ✳ Tagore wanted deserts in India to be made hospitable.

Question Number : 3

Correct Marks : 1

Question Label : Multiple Choice Question

What do Line 3 of the poem, 'Where the world has not been broken up into fragments' and Line 4 of the poem, 'By narrow domestic walls' mean?

Options :

1. ✳ The country should not be divided into administrative sub-divisions.

2. ✔ Tagore wishes for a country that is not broken up based on prejudices of caste, creed, colour, religion or other needless superstitions domestically.

3. ✳ The country should not be divided on the basis of rivers flowing within the country.

4. ✳ The country should not be divided into sub-divisions based on food habits.

Question Number : 4

Correct Marks : 1

Question Label : Multiple Choice Question

What does the last line, 'Into that heaven of freedom, my Father, let my country awake' convey?

Options :

1. ✖ It conveys that India was a lazy country and should be made more active.

2. ✖ It conveys that Indians were sleeping a lot, and he wants Indians to be awakened.

3. ✖ It conveys that Indians were a lying lot and wanted them to come out with the truth.

4. ✔ It conveys that India should be rid of British Rule and also rid of its innumerable domestic social evils.

Question Number : 5

Correct Marks : 1

Question Label : Multiple Choice Question

What sentiment does the poem convey?

Options :

1. ✔ It conveys that the oppression of British Rule has suppressed Indians and Tagore wants India to walk into freedom.

2. ✖ It conveys that Indians are cowards.

3. ✖ It conveys that Indians are mired in tradition.

4. ✖ It conveys that India is consumed by strife.

Question Numbers : (6 to 10)

Question Label : Comprehension

READING

Read the passage and answer the questions that follow

(Source: https://www.learncbse.in/)

One day, I hopped in a taxi, and we took off for the airport. We were driving in the right lane when suddenly a car jumped out of a parking space right in front of us. My taxi driver slammed on his brakes, skidded and missed the other car by just inches! The driver of the other car whipped his head around and started yelling at us. My taxi driver just smiled and waved at the guy. He was calm and friendly. So I asked, 'Why did you just do that? This guy would have almost ruined your

car and sent us to the hospital'. This is when my taxi driver taught me what I now call the 'The Law of the Garbage Truck'.

He explained that many people are like garbage trucks. They run around full of garbage, full of anger and full of disappointment. As their garbage piles up, they need a place to dump it and sometimes, they will dump it on you. Don't take it personally. Just smile wave, wish them well, and move on. Don't take their garbage and spread it to other people at work, at home or on the streets.

The bottom line is that successful people do not let garbage trucks take over their day. Life is too short to wake up in the morning with regrets. So, love the people who treat you right and forgive the ones who don't'. This attitude will help you sail through life. There will be fewer jerks and bumps. Learn to take the bad with the good, for life can never be perfect. Acceptance is the solution. Don't react. Just accept, and you will be a lot more happy. Life is ten percent what you make it and ninety percent how you take it.

Sub questions

Question Number : 6

Correct Marks : 1

Question Label : Multiple Choice Question

The taxi driver compared the yelling driver to a _____.

Options :

1. ✖ Waste basket

2. ✖ Bio-degradable waste

3. ✔ Garbage truck

4. ✖ Garbage

Question Number : 7

Correct Marks : 1

Question Label : Multiple Choice Question

The word from the passage that means the same as 'to move briskly' is _____.

Options :

1. ✖ Hopped

2. ✖ Slammed

3. ✖ Skidded

4. ✔ Whipped

Question Number : 8

Correct Marks : 1

Question Label : Multiple Choice Question

The word from the passage that means the same as 'feeling of defeat' is _____.

Options :

1. ✖ Jerk

2. ✖ Acceptance

3. ✔ Frustration

4. ✖ Bump

Question Number : 9

Correct Marks : 1

Question Label : Multiple Choice Question

The term 'garbage' in the context of the passage given means _____.

Options :

1. ✖ Waste materials

2. ✖ Wastebasket

3. ✖ Acceptance

4. ✖ Frustration

5. ✖ Disappointment

6. ✔ Both Frustration & Disappointment

Question Number : 10

Correct Marks : 1

Question Label : Multiple Choice Question

Many people are like garbage trucks (The taxi driver said). The given statement is a/an
_____.

Options :

1. ✖ Fact

2. ✔ Opinion

Question Number : 11

Correct Marks : 10

Question Label : Multiple Select Question

LISTENING

A Horse and Two Goats by R.K. Narayanan

(Source: https://www.youtube.com/watch?v=YKNZiKzBAGQ)

Listen to the audio sample and choose the false statements.

🔊 885_388245_0_1984128_e200a1.mp3

Options :

1. ✖ Kritham had a single concrete house.

2. ✔ Kritham was the largest of all the villages in India.

3. ✖ Muni was once quite prosperous.

4. ✔ Muni wanted to have greenpeas curry.

5. ✖ An outlander from New York stepped out of the yellow car.

6. ✔ The foreigner spoke Tamil.

7. ✖ There was a recent murder in the village of Kritham.

8. ✖ The foreigner was interested in the horse.

9. ✔ Muni spoke Telugu.

10. ✔ Neither the vendor nor Muni's wife turned Muni away.

11. ✖ The guardian horse is Kalki.

12. ✖ 'Adversary' (in the context of the story) means obstacles/enemies.

13. ✔ Muni thought that the foreigner underpaid him.

14. ✔ Pedestal (in the context of the story) refers to the two men who detached the horse from its base.

15. ✔ Based on the first two examples, the analogy for goat is plate.

Example one: Bees – Buzz/Hum

Example two: Lions – Roar

Goats – Plate

16. ✔ Muni's wife was scared that the police would come and break her legs.

17. ✔ Muni's wife was a gentle and a kind-hearted woman.

Question Numbers : (12 to 26)

Question Label : Comprehension

GRAMMAR AND USAGE

Fill in the blanks from the options given below.

Book Review of 'Death on the Nile' by Agatha Christie

The detective Hercule Poirot is 1. _____ holiday in Egypt when he is 2. _____ into the mysterious affair of the newlywed couple: Linnet, and Simon Doyle. Linnet had allegedly stolen Simon from his former fiancee, Jacqueline de Bellefort, 3. _____ is enraged. As a method of revenge, Jacqueline follows the Doyles anywhere they 4. _____ , and when Linnet and Simon arrive at their honeymoon destination 5. _____ Egypt, Jacqueline is waiting for them. She follows them onto the river cruise up the Nile, just when the Doyles had believed that she had stopped. Linnet is extremely scared, and 6. _____ to Poirot of how she is surrounded by enemies. Some days later, Linnet is found shot through the head in her cabin and Poirot is 7. _____ pressure to find the killer, before they strike again.

Although this book was 8. _____ a long time ago , Agatha Christie is definitely a writer who needs to be remembered and her books still 9. _____ people today. This was the first Agatha Christie book I had ever read, and from page one I was 10. _____! Now I own ten other Poirot 11. _____ (Poirot was the detective 12. _____ in most of Christie's

murder mysteries) . If you like to read about crime/detective 13. _____ with good plots, then 'Death On the Nile' is a perfect pick.

Christie describes her characters brilliantly with exquisite detail. The 14. _____ of Agatha Christie is that the reader is given the same clues as the detective, so if you are bright enough, you can find the identity of the 15. _____ before the detective! I would give this book a definite 10/10.

Sub questions

Question Number : 12

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 1 _____.

Options :

1. ✖ in

2. ✔ on

3. ✖ into

Question Number : 13

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 2 _____.

Options :

1. ✖ draw

2. ✖ drawed

3. ✔ drawn

Question Number : 14

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 3 _____.

Options :

1. ✖ what

2. ✔ who

3. ✖ whom

Question Number : 15

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 4 _____.

Options :

1. ✔ go

2. ✖ goes

Question Number : 16

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 5 _____.

Options :

1. ✔ in

2. ✖ on

3. ✖ over

Question Number : 17

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 6 _____.

Options :

1. ✖ speak

2. ✔ speaks

3. ✖ spoken

Question Number : 18

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 7 _____.

Options :

1. ✔ under

2. ✱ over

3. ✱ with

Question Number : 19

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 8 _____.

Options :

1. ✱ write

2. ✱ wrote

3. ✔ written

Question Number : 20

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 9 _____.

Options :

1. ✱ disgust

2. ✱ repulse

3. ✔ fascinate

Question Number : 21

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 10 _____.

Options :

1. ✖ thrill

2. ✖ thriller

3. ✔ thrilled

Question Number : 22

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 11 _____.

Options :

1. ✖ book

2. ✔ books

Question Number : 23

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 12 _____.

Options :

1. ✖ chasted

2. ✔ featured

Question Number : 24

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 13 _____.

Options :

1. ✔ fiction

2. ✖ non-fiction

Question Number : 25

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 14 _____ .

Options :

1. ✸ clever

2. ✔ wit

3. ✸ fun

Question Number : 26

Correct Marks : 1

Question Label : Multiple Choice Question

Enter your answer for blank 15 _____ .

Options :

1. ✔ criminal

2. ✸ heroine

3. ✸ hero

Question Numbers : (27 to 41)

Question Label : Comprehension

SOUNDS,WORDS AND SENTENCES

Choose the right answer from the options given in the subquestions.

Sub questions

Question Number : 27

Correct Marks : 1

Question Label : Multiple Choice Question

In this sentence 'He likes pizza', the word 'likes' has a _____ marker on it.

Options :

1. ✔ Singular

2. ✖ Plural

Question Number : 28

Correct Marks : 1

Question Label : Multiple Choice Question

'An' is a definite determiner.

Options :

1. ✖ TRUE

2. ✔ FALSE

Question Number : 29

Correct Marks : 1

Question Label : Multiple Choice Question

In the phrase 'A man', 'man' is (a/an) _____.

Options :

1. ✔ Noun

2. ✖ Adjective

Question Number : 30

Correct Marks : 1

Question Label : Multiple Choice Question

In the word 'scot', /k/ is a non-aspirated sound.

Options :

1. ✔ TRUE

2. ✖ FALSE

Question Number : 31

Correct Marks : 1

Question Label : Multiple Choice Question

The word 'school' is monosyllabic.

Options :

1. ✔ TRUE

2. ✖ FALSE

Question Number : 32

Correct Marks : 1

Question Label : Multiple Choice Question

'Stop right there' is a request.

Options :

1. ✖ TRUE

2. ✔ FALSE

Question Number : 33

Correct Marks : 1

Question Label : Multiple Choice Question

The position of words in a sentence in English is the same in other Indian Languages.

Options :

1. ✖ TRUE

2. ✔ FALSE

Question Number : 34

Correct Marks : 1

Question Label : Multiple Choice Question

In the word 'books', plural marking sound is:

Options :

1. ✖ /z/

2. ✔ /s/

Question Number : 35

Correct Marks : 1

Question Label : Multiple Choice Question

Mark the correct one.

Options :

1. ✔ bliss- /blis/

2. ✖ bliss- /bliis/

Question Number : 36

Correct Marks : 1

Question Label : Multiple Choice Question

In the phrase, 'The Postman', 'the' is a determiner and 'postman' is a _____.

Options :

1. ✖ Verb

2. ✔ Noun

3. ✖ Adjective

4. ✖ Adverb

Question Number : 37

Correct Marks : 1

Question Label : Multiple Choice Question

He _____ like ice-creams.

Options :

1. ✖ do not

2. ✔ does not

Question Number : 38

Correct Marks : 1

Question Label : Multiple Choice Question

I am a doctor.' This sentence is an indicator of _____ tense.

Options :

1. ✔ Present

2. ✖ Past

Question Number : 39

Correct Marks : 1

Question Label : Multiple Choice Question

In the agreement in English sentences, number and _____ play a critical role.

Options :

1. ✖ Gender

2. ✔ Person

Question Number : 40

Correct Marks : 1

Question Label : Multiple Choice Question

If the subject in a sentence is singular, then the main verb (in the sentence) needs to be plural.

Options :

1. ✖ TRUE

2. ✔ FALSE

Question Number : 41

Correct Marks : 1

Question Label : Multiple Choice Question

/p/, /t/, /k/ are known as _____ sounds.

Options :

1. ✖ dental

2. ✔ stop

Computational thinking

Number of Questions : 14

Section Marks : 50

Mark As Answered Required? : Yes

Question Number : 42

Correct Marks : 0

Question Label : Multiple Choice Question

Library

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

Scores

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

Words

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

Options :

1. ✔ Useful Data has been mentioned above.

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

Question Number : 43

Correct Marks : 3

Question Label : Multiple Choice Question

The following pseudocode is executed using the "Words" table. What will be the value of **A** represent at the end of the execution?

```
A = 0
while (Table 1 has more rows) {
        Read the first row X in Table 1
        if (X.PartOfSpeech == "Noun" and X.LetterCount ≥ 7) {
            A = A + 1
        }
        Move X to Table 2
}
```

Options :

1. ✶ Number of nouns

2. ✶ Number of words with the letter count at least 7

3. ✔ Number of nouns with the letter count at least 7

4. ✶ Number of nouns with the letter count at most 7

Question Number : 44

Correct Marks : 3

Question Label : Multiple Choice Question

The following pseudocode is executed using the "Words" table. At the end of the execution, **A** captures the maximum letter count of a word which is not a noun. Choose the correct code fragment to complete the pseudocode.

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

Options :

```
if (X.PartOfSpeech == "Noun" and X.LetterCount > A) {
        A = X.LetterCount
```

1. ✶ }

if (**X**.*PartOfSpeech* ≠ "Noun" and **X**.*LetterCount* < **A**) {
        A = **X**.*LetterCount*
2. ✖ }

if (**X**.*PartOfSpeech* == "Noun" and **X**.*LetterCount* < **A**) {
        A = **X**.*LetterCount*
3. ✖ }

if (**X**.*PartOfSpeech* ≠ "Noun" and **X**.*LetterCount* > **A**) {
        A = **X**.*LetterCount*
4. ✔ }

Question Number : 45

Correct Marks : 3

Question Label : Multiple Choice Question

The following pseudocode is executed using the "Library" table. At the end of the execution, **A** captures the second highest number of pages. Assume that the variable **Max** holds the value of the highest number of pages of any book. Choose the correct code fragment to complete the pseudocode.

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

Options :

if (**X**.*Pages* > **A**) {
        A = **X**.*Pages*
1. ✖ }

```
    if (X.Pages < Max and X.Pages > A) {
        A = X.Pages
2. ✔ }
```

```
    if (X.Pages > Max and X.Pages < A) {
        A = X.Pages
3. ✘ }
```

```
    if (X.Pages < Max) {
        A = X.Pages
4. ✘ }
```

Question Number : 46

Correct Marks : 3

Question Label : Multiple Choice Question

Let **X** be a row in the "Library" table. Let **isShortFiction** be a procedure which finds whether the book **X** is a fictional book with at most 200 pages. Choose the correct code fragment to complete the pseudocode.

```
Procedure isShortFiction (X)
    ********************
    *    Fill the code    *
    ********************
End isShortFiction
```

Options :

```
    if (X.Genre == "Fiction") {
        return (True)
    }
    else {
        return (False)
1. ✘ }
```

```
    if (X.Genre == "Fiction" and X.Pages <= 200) {
        return (False)
    }
    else {
        return (True)
2. ✘ }
```

```
if (X.Genre == "Fiction" and X.Pages <= 200) {
     return (True)
}
   else {
     return (False)
3. ✔ }
```

```
if (X.Genre == "Fiction" or X.Pages <= 200) {
     return (True)
}
else {
     return (False)
4. ✖ }
```

Question Number : 47

Correct Marks : 3

Question Label : Multiple Choice Question

The following pseudocode is executed using the "Scores" table. What will be the value of **A** represent at the end of the execution?

```
A = 0
while (Table 1 has more rows) {
      Read the first row X in Table 1
      B = True
      if (X.Physics ≥ 70) {
           B = False
      }
      if (X.Chemistry ≥ 70) {
           B = False
      }
      if (X.Mathematics ≥ 70) {
           B = False
      }
      if (B) {
           A = A + 1
      }
      Move X to Table 2
}
```

Options :

1. �֍ Number of students with all subject marks more than 70

2. ✖ Number of students with exactly one subject marks less than 70

3. ✔ Number of students with all subject marks less than 70

4. ✖ Number of students with all subject marks at least 70

Question Number : 48

Correct Marks : 3

Question Label : Multiple Choice Question

The following pseudocode is executed using the "Words" table. At the end of the execution, **A** is set to True if and only if there is a pair of words with the same part of speech and the same letter count. Choose the correct code fragment to complete the pseudocode.

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

Options :

$$if\ (X.PartOfSpeech == Y.PartOfSpeech\ and\ X.LetterCount == Y.LetterCount)\ \{$$
$$A = True$$

1. ✔ }

$$if\ (X.PartOfSpeech == Y.PartOfSpeech\ or\ X.LetterCount == Y.LetterCount)\ \{$$
$$A = True$$

2. ✖ }

$$if\ (X.PartOfSpeech == Y.PartOfSpeech\ or\ X.LetterCount == Y.LetterCount)\ \{$$
$$A = False$$

3. ✖ }

```
if (X.PartOfSpeech == Y.PartOfSpeech and X.LetterCount == Y.LetterCount) {
    A = False
4. ✸ }
```

Question Number : 49

Correct Marks : 4

Question Label : Multiple Choice Question

The following pseudocode is executed using the "Scores" table. What will be the values of the variables **A** and **B** represent at the end of the execution?

```
A = 0, B = 0
while (Table 1 has more rows) {
    Read the first row X in Table 1
    if (X.Physics == A) {
        B = B + 1
    }
    if (X.Physics > A) {
        A = X.Physics
        B = 1
    }
    Move X to Table 2
}
```

Options :

1. ✸ **A** = Number of students with maximum Physics marks

B = Highest Physics marks in the dataset

2. ✸ **A** = Lowest Physics marks in the dataset

B = It is always one

3. ✸ **A** = Highest Physics marks in the dataset

B = It is always one

4. ✔ **A** = Highest Physics marks in the dataset

B = Number of students with maximum Physics marks

Question Number : 50

Correct Marks : 4

Question Label : Multiple Choice Question

The following pseudocode is executed using the "Scores" table. What will be the value of **C** represent at the end of the execution?

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

Procedure DoTheyMatch (X, Y)
        if (X.Physics + Y.Physics == X.Chemistry + Y.Chemistry) {
        return (True)
        }
        else {
                return (False)
        }
End DoTheyMatch
```

Options :

1. ✖ Number of pairs of students with the same Physics marks and Chemistry marks

2. ✖ Number of pairs of students with their sum of Physics and Chemistry marks being the same

3. ✖ Number of pairs students with sum of their subject marks being the same

4. ✔ Number of pairs of students with sum of their Physics marks same as the sum of their Chemistry marks

Question Number : 51

Correct Marks : 5

Question Label : Multiple Choice Question

The following pseudocode is executed using the "Scores" table. Let **B** be a positive integer value. What does the procedure **DoSomething** compute?

```
Procedure DoSomething (B)
    C = 0, D = 100
    while (Table 1 has more rows) {
        Read the first row X in Table 1
        if (X.Chemistry > C) {
            C = X.Chemistry
        }
        if (X.Chemistry < D) {
            D = X.Chemistry
        }
        Move X to Table 2
    }
    if (C − D >= B) {
        return (True)
    }
    else {
        return (False)
    }
End DoSomething
```

Options :

1. ✔ Outputs "True" if and only if the difference between the maximum Chemistry marks and the minimum Chemistry marks is at least **B**

2. ✖ Outputs "True" if and only if the difference between the maximum Chemistry marks and the second maximum Chemistry marks is at most **B**

3. ✖ Outputs "True" if and only if the difference between the maximum Chemistry marks and the second minimum Chemistry marks is at least **B**

4. ✖ Outputs "True" if and only if the difference between the maximum Chemistry marks and the minimum Chemistry marks is more than **B**

Question Number : 52

Correct Marks : 3

Question Label : Multiple Select Question

The following pseudocode is executed using the "Scores" table. At the end of the execution, **A** captures the number of students who are from Bengaluru or have Chemistry marks less than the average Chemistry marks. Assume that the variable **Avg** holds the value of the average Chemistry marks. The pseudocode may have mistakes. Identify all such mistakes (if any).

```
1   A = 0
2   while (Table 1 has more rows) {
3         Read the first row X in Table 1
4         C = False
5         if (X.CityTown == "Bengaluru") {
6               C = True
7         }
8         if (X.Chemistry < Avg) {
9               C = False
10        }
11        if (C) {
12              A = 1
13        }
14        Move X to Table 2
15 }
```

Options :

1. ✖ Error in Line 5

2. ✖ Error in Line 8

3. ✔ Error in Line 9

4. ✔ Error in Line 12

5. ✖ No error

Question Number : 53

Correct Marks : 5

Question Label : Multiple Select Question

The following pseudocode is executed using the "Words" table. At the end of the execution, **A** captures the number of nouns with letter count at least four and at most eight. But the pseudocode may have mistakes. Identify all such mistakes (if any).

```
1   C = 1
2   while (Table 1 has more cards) {
3         Read the first row X from Table 1
4         if (CheckSomething(X, 4, 8)) {
5               C = C + 1
6         }
7         Move X to Table 2
8   }

9   Procedure CheckSomething (Y, C1, C2)
10      if (Y.PartOfSpeech == "Noun") {
11            if (C1 ≤ Y.LetterCount and Y.LetterCount ≥ C2) {
12                  return (True)
13            }
14            else {
15                  return (False)
16            }
17      }
18      else {
19            return (False)
20      }
21  End CheckSomething
```

Options :

1. ✔ Error in Line 1

2. ✖ Error in Line 5

3. ✖ Error in Line 10

4. ✔ Error in Line 11

5. ✖ Multiple *return(False)* in procedure **CheckSomething**

6. ✖ No error

Question Number : 54

Correct Marks : 5

Question Label : Multiple Select Question

The following pseudocode is executed using the "Library" table. At the end of the execution, **A** captures the number of pairs of books which are released under same genre and in same year but in different languages. The pseudocode may have mistakes. Identify all such mistakes (if any).

```
1    A = 0
2    while (Table 1 has more cards) {
3          Move X to Table 2
4          Read the first row X from Table 1
5          while (Table 1 has more rows) {
6                Read the first row Y from Table 1
7                B = True, C = False, D = True
8                if (X.Genre ≠ Y.Genre) {
9                      B = True
10               }
11               if (X.Year == Y.Year) {
12                     C = False
13               }
14               if (X.Language == Y.Language) {
15                     D = False
16               }
17               if (B and C and D) {
18                     A = A + 1
19               }
20               Move Y to Table 3
21         }
22         Move all rows from Table 3 to Table 1
23   }
```

Options :

1. ✖ Line 1: A is initialized with wrong value

2. ✔ Line 9: B is updated with wrong value

3. ✔ Line 12: C is updated with wrong value

4. ✖ Line 15: D is updated with wrong value

5. ✖ Line 18: Incorrect summation operation

6. ✖ No errors

Question Number : 55

Correct Marks : 6

Question Label : Multiple Select Question

The following pseudocode is executed using the "Words" table. At the end of the execution, **C** captures the number of pairs of words which have the same part of speech, or end with a full stop and have the same letter count. Choose the correct code fragments(s) to complete the pseudocode.

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

Options :

1. ✔
$$\text{if } ((X.PartOfSpeech == Y.PartOfSpeech)$$
$$\text{or } (X.Word \text{ ends with a full stop and } Y.Word \text{ ends with a full stop}$$
$$\text{and } X.LetterCount == Y.LetterCount)) \{$$
$$C = C + 1$$
$$\}$$

2. ✔
$$\text{if } (X.PartOfSpeech == Y.PartOfSpeech) \{$$
$$C = C + 1$$
$$\}$$
$$\text{else} \{$$
$$\text{if } (X.Word \text{ ends with a full stop and } Y.Word \text{ ends with a full stop}$$
$$\text{and } X.LetterCount == Y.LetterCount) \{$$
$$C = C + 1$$
$$\}$$
$$\}$$

3. ✖
$$\text{if } (X.PartOfSpeech == Y.PartOfSpeech) \{$$
$$C = C + 1$$
$$\}$$
$$\text{if } (X.Word \text{ ends with a full stop and } Y.Word \text{ ends with a full stop}$$
$$\text{and } X.LetterCount == Y.LetterCount) \{$$
$$C = C + 1$$
$$\}$$

4. ✖

```
if (X.PartOfSpeech == Y.PartOfSpeech) {
    if (X.Word ends with a full stop and Y.Word ends with a full stop
        and X.LetterCount == Y.LetterCount) {
            C = C + 1
    }
}
```

Statistics for Data Science 1

Number of Questions :	14
Section Marks :	50
Mark As Answered Required? :	Yes

Question Number : 56

Correct Marks : 3

Question Label : Multiple Choice Question

The mean annual salary paid to all employees in a company is ₹66 lakhs. The mean annual salaries paid to male and female employees of the company are ₹50 lakhs and ₹70 lakhs respectively. Then, the percentage of females employed by the company is:

Options :

1. ✖ 60%

2. ✔ 80%

3. ✖ 20%

4. ✖ 40%

5. ✖ 50%

Question Number : 57

Correct Marks : 3

Question Label : Multiple Choice Question

If first quartile (Q_1) = 30 and third quartile (Q_3) = 40, which of the following must be true?

I. The mean is between 30 and 40.

II. The median is 35.

III. The standard deviation is at most 10.

Options :

1. ✖ I only

2. ✖ II only

3. ✖ III only

4. ✖ I and II

5. ✖ All I,II,III are true

6. ✔ None is true

Question Number : 58

Correct Marks : 3

Question Label : Multiple Choice Question

Suppose the correlation coefficient between two variables x and y is 0.32. What will be the new correlation coefficient if 0.15 is added to all values of the x variable, every value of y variable is tripled, and the two variables are interchanged?

Options :

1. ✖ 0.47

2. ✔ 0.32

3. ✖ 0.94

4. ✖ –0.32

5. ✖ –0.47

Question Number : 59

Correct Marks : 3

Question Label : Multiple Choice Question

Which of the following statements about correlation coefficient, r, is true?

Options :

1. ✔ Correlation coefficient is affected by outliers.

2. ✻ A correlation coefficient of 0.80 indicates a linear relationship whose slope is 4 times that of data whose correlation is 0.20.

3. ✻ Correlation coefficient of variable *x* with variable *y* need not be the same as correlation coefficient of *y* with *x*.

4. ✻ A correlation coefficient of 0.4 means that 40% of the points are highly correlated.

Question Number : 60

Correct Marks : 1

Question Label : Multiple Choice Question

If the standard deviation of a set of non-zero observations is zero, you can conclude

Options :

1. ✻ that the mean (average) value is zero.

2. ✔ that all observations have the same value.

3. ✻ that a mistake in calculation has been made.

4. ✻ that the observations have same number of positive and negative data points.

5. ✻ none of these

Question Number : 61

Correct Marks : 1

Question Label : Multiple Select Question

Consider various variables that describe a used Royal Enfield motorcycle. These variables include price(INR lakhs), mileage(km/litre), model type, and model year. Their values are collected for 250 used motorcycles which are then organised in a data table. Based on this information, choose the correct option(s) from below.

Options :

1. ✻ The number of cases/observations in the data table is 4.

2. ✔ The number of cases/observations in the data table is 250.

3. ✔ Model type is a categorical variable.

4. ✔ Price is a numerical variable.

5. ✻ Mileage is a categorical variable.

Question Number : 62

Correct Marks : 3

Question Label : Multiple Select Question

The bar chart given in Figure Q.1 shows the shoe sizes of a group of 50 children. Based on this information, which of the following statements is(are) true?
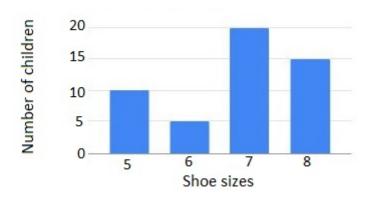
Number of children vs. Shoe sizes

Figure Q.1 Shoe size dataset

Options :

1. ✔ 5 children wear size 6 shoes.

2. ✖ 30 children wear shoes of size less than 8.

3. ✔ 7 is the modal shoe size.

4. ✔ 35 children wear shoes size larger than 6.

5. ✖ 6 is the median shoe size.

6. ✖ Range of the shoe size is 4.

7. ✖ The value of first quartile (Q_1) for the shoe size is 5.

Question Number : 63

Correct Marks : 3

Question Label : Multiple Select Question

In a call center, there are 100 employees and the number of calls they receive vary over the length of the day. The working hours are 9 AM to 6 PM with lunch break from 1 PM to 2 PM. The average number of calls received from 9 AM to 1 PM by an employee is 10 per hour, and the average

number of calls received by the employee from 2 PM to 6 PM is 20 per hour. Based on this data, choose the correct options from below.

Options :

1. ✔ Average number of calls received by an employee in working hours is 15 *calls/hour*.

2. ✔ The correlation coefficient of time and calls received is positive.

3. ✖ The correlation coefficient of time and calls received is negative.

4. ✖ The standard deviation of the calls received is equal to zero.

5. ✖ The slope of the trend line is negative.

Question Number : 64

Correct Marks : 3

Question Label : Multiple Select Question

The correlation was found to be r = -0.86 between price (x) and demand of mobile phones (y). Which of the following options could be true?

Options :

1. ✔ Given two points from the scatter plot of price and demand of mobile phones, one point has a smaller x value and a larger y value than another point.

2. ✔ Given two points from the scatter plot of price and demand of mobile phones, one point has a larger x value and a smaller y value than another point.

3. ✖ The covariance of price and demand of mobile phones is positive.

4. ✔ The covariance of price and demand of mobile phones is negative.

Question Number : 65

Correct Marks : 3

Question Label : Short Answer Question

Annual summary of five employees in an insurance company is given in Table Q.2. If the ratio of insurance policies sold by B and D are in the ratio 5:12, then how many insurance policies did employee B sell?

Insurance employee	Frequency	Relative frequency
A	175	0.21875
B		
C	100	0.125
D		
E	100	0.125

Table Q.2: Insurance dataset

NOTE: Enter your answer to the nearest integer.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

125

Question Numbers : (66 to 68)

Question Label : Comprehension

Use the following information and data given in Figure Q.2 and Figure Q.3 to answer the given subquestions

The stem and leaf plot diagrams given in Figure Q.2 and Figure Q.3 show the results of Statistics and Mathematics exams conducted in a school respectively. In Figure Q.3, a is an unknown value.

```
4 | 2 4 8
5 | 1 3 6 9
6 | 2 4 6 8 9
7 | 3 5 7 8 8 8 9
8 | 2 5 8
9 | 5 7
```

Figure Q.2: Stem and leaf plot of scores of Statistics paper, Key: $4|2 = 42$

```
4 | 0
5 | 2 3 7
6 | 1 2 4 9
7 | 7
8 | 1 3 5 7 7 7
9 | a
```

Figure Q.3: Stem and leaf plot of scores of Mathematics paper, Key: $4|0 = 40$

Sub questions

Question Number : 66

Correct Marks : 1

Question Label : Short Answer Question

What is the difference between the modal scores of Mathematics and Statistics?

NOTE: Enter your answer to the nearest integer.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

9

Question Number : 67

Correct Marks : 3

Question Label : Short Answer Question

If the range of Mathematics scores is greater than the range of Statistics scores by 1, then the value of a is

NOTE: Enter your answer to the nearest integer.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

6

Question Number : 68

Correct Marks : 1

Question Label : Short Answer Question

What is the difference between the medians of the two scores?

NOTE: Enter your answer to the nearest integer.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

2

Question Numbers : (69 to 72)

Question Label : Comprehension

Use the following information and data given in Table Q.1
to answer the given subquestions

The placement statistics for the year 2020 of an engineering college that
grants degrees in Computer Engineering and Mechanical Engineering is
given in Table Q.1.

Roll No.	Gender	Score Percentage	Specialisation	Placement Status	Salary (INR lakhs)
CS18B001	M	85%	CSE	Placed	11
ME18B001	M	95%	ME	Placed	8.00
ME18B002	F	75%	ME	Placed	6.00
CS18B002	F	78%	CSE	Placed	8.00
CS18B003	M	85%	CSE	Not placed	
CS18B004	F	88%	CSE	Placed	9.00
ME18B003	M	85%	ME	Not placed	
CS18B005	F	75%	CSE	Placed	12.00
CS18B006	F	65%	CSE	Placed	6.00
CS18B007	M	92%	CSE	Placed	20.00
CS18B008	F	55%	CSE	Not placed	
ME18B004	M	95%	ME	Placed	7.00
CS18B009	M	82%	CSE	Placed	15.00
CS18B010	F	87%	CSE	Placed	8.00
ME18B005	M	50%	ME	Not placed	

Table Q.1: Placements dataset

Sub questions

Question Number : 69

Correct Marks : 1

Question Label : Multiple Select Question

Which of the following is (are) case(s)?

Options :

1. ✔ ME18B001

2. ✖ M

3. ✖ F

4. ✔ CS18B009

5. ✖ CSE

6. ✖ ME

Question Number : 70

Correct Marks : 1

Question Label : Multiple Select Question

Which of the following is (are) numerical variable(s)?

Options :

1. ✖ Roll No.

2. ✔ Score Percentage

3. ✖ Placement Status

4. ✔ Salary (INR lakhs)

Question Number : 71

Correct Marks : 3

Question Label : Short Answer Question

What is the population standard deviation of the salary in INR lakhs of the placed students? (Ignore the cases of students who are not placed.) Enter the answer up to 3 decimal points accuracy.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

3.9 to 4.3

Question Number : 72

Correct Marks : 5

Question Label : Short Answer Question

What is the absolute value of the point bi-serial correlation coefficient of association between gender and salary among the students? (Ignore the cases of students who are not placed.) Enter the answer up to 3 decimal points accuracy.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

0.47 to 0.52

Question Numbers : (73 to 75)

Question Label : Comprehension

Use the following information and data given in Figure Q.4 to answer the given subquestions

The stacked bar chart given in Figure Q.4 represents the repayment status of 2000 loans sanctioned by a prominent bank in the month of July.
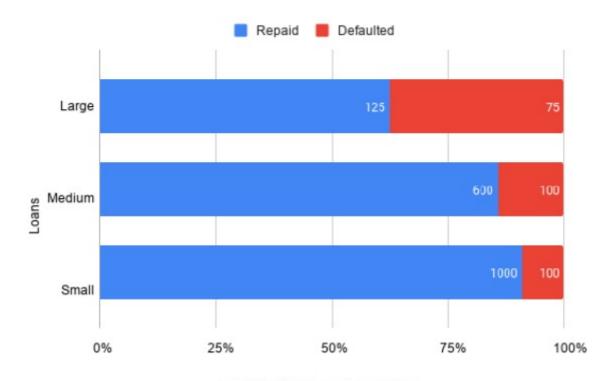

Figure Q.4: Loan dataset

Sub questions

Question Number : 73

Correct Marks : 1

Question Label : Multiple Choice Question

What is the median of the loan variable?

Options :

1. ✶ Large

2. ✔ Small

3. ✶ Medium

4. ✶ Median is not defined for the loans.

Question Number : 74

Correct Marks : 1

Question Label : Short Answer Question

What is the relative frequency of repaid loans in the overall 2000 loans lent by the bank? Enter the answer up to four decimals accuracy.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

0.8625

Question Number : 75

Correct Marks : 1

Question Label : Multiple Choice Question

What is the mode of the loans lent by the bank?

Options :

1. ✶ Large

2. ✔ Small

3. ✶ Medium

4. ✖ Mode is not defined for the loans.

Question Numbers : (76 to 77)

Question Label : Comprehension

Use the data given in Figure Q.5 to answer the given subquestions
The histogram of runs scored by a batsman in his career is given in
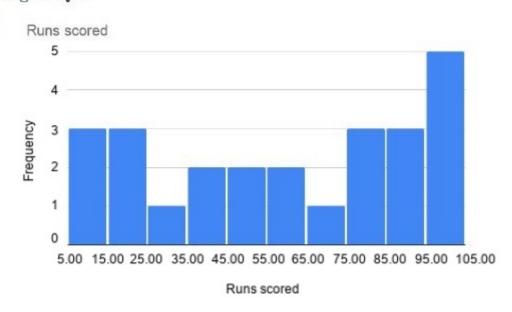Figure Q.5.

Runs scored

Figure Q.5: Runs dataset

Sub questions

Question Number : 76

Correct Marks : 1

Question Label : Short Answer Question

What is the approximate mean of the runs scored by the batsman?

NOTE: Enter your answer to the nearest integer.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Question Number : 77

Correct Marks : 5

Question Label : Short Answer Question

What is the approximate population standard deviation of the runs scored by the batsman? Enter the answer up to 2 decimals accuracy. Hint: Use the class mark and frequency to solve for standard deviation.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

32.1 to 32.5

Mathematics for Data Science 1

Number of Questions :	13
Section Marks :	50
Mark As Answered Required? :	Yes

Question Number : 78

Correct Marks : 0

Question Label : Multiple Choice Question

Options :

1. ✔ Useful Data has been mentioned above.

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

Question Number : 79

Correct Marks : 3

Question Label : Multiple Choice Question

There are four employees in a company. Their salaries (₹ in lakhs) for the year 2010 are given in Table 1. The table also gives their respective increments in salary (₹ in lakhs) per year for all employees except Tanaya.

Employee	Salary in 2010	Increment in salary per year
Bravashu	8	0.4
Tanaya	9	-
Rohini	9	0.4
Karan	7	0.9

Table 1: Incomplete table of salaries and increments

If Tanaya's salary is ₹18 lakhs for the year 2020, which option gives the correct relationship between the number of years since 2010 (y) and the total salary (C) given away by the company for the same year?

Options :

1. ✖ $C = 2.6y + 36$

2. ✖ $C = 0.9y + 10$

3. ✔ $C = 2.6y + 33$

4. ✖ $C = 2.4y + 33$

5. ✖ $C = 2.4y + 37$

Question Number : 80

Correct Marks : 2

Question Label : Multiple Select Question

Which of the following pairs of straight lines are perpendicular to each other?

Options :

1. ✔ $x + y = 1$ and $x - y = -1$

2. ✗ $x = 0$ and $x = y$

3. ✓ $2x + 3y = 9$ and $\frac{y}{12} - \frac{x}{8} = 3$

4. ✗ $\frac{x}{8} + \frac{y}{9} = 1$ and $\frac{x}{8} - \frac{y}{9} = 1$

Question Number : 81

Correct Marks : 5

Question Label : Multiple Select Question

A Wi-Fi router is kept at position $(0,0)$ and its maximum transmission range is 10m. If Rohan is walking along a straight line ℓ and his phone is in the transmission range of the Wi-Fi router for a brief duration, then ℓ could be (assume $x \in [-30, 30]$ for all the options and unit length is 1m):

Options :

1. ✓ $x - y - 5 = 0$

2. ✓ $x - y - 10 = 0$

3. ✗ $x - y - 15 = 0$

4. ✓ $y = 9$

5. ✗ All of these

Question Number : 82

Correct Marks : 5

Question Label : Multiple Select Question

Two types of paper cups are kept in two different stacks (one stack is dedicated for one type of cup). The height of each cup of the first type is 9 cm and the height of each cup of the second type is 10 cm. If one cup is stacked inside another, the height is 1.5 cm more than a single cup for the first type and 1 cm more than a single cup for the second type respectively. If we have m cups of the first type and n cups of the second type, and we know that the total heights of both the stacks are the same. Choose the possible correct options:

Options :

1. ✔ $m = n = 3$

2. ✖ $m = 4$, $n = 3$

3. ✔ $m = 7$, $n = 9$

4. ✔ $3m = 2n + 3$; m and $n \in \mathbb{N} \setminus \{0\}$

5. ✖ $3m = 2n + 2$; m and $n \in \mathbb{N} \setminus \{0\}$

6. ✖ Both m and n are unique

Question Number : 83

Correct Marks : 5

Question Label : Multiple Select Question

A mobile company offers two plans. Plan A costs ₹300 and offers 1000 free minutes per month with a charge of 15 paise per minute for every additional minute. Plan B costs ₹400 and offers 1500 free minutes per month with a charge of 10 paise per minute for every additional minute. Let $C_A(t)$ and $C_B(t)$ represent the total cost per month for the plan A and the plan B respectively, where t represents the number of minutes used. If Riya uses 1800 minutes per month, then choose the set of correct options with respect to Riya.

Options :

1. ✔ Plan A costs less than plan B

2. ✖ Plan B costs less than plan A

3. ✔ $C_A(t) = 300$, for all $t \in [0, 1000]$

4. ✘ $C_A(t) = 0.1t + 400$, for all $t \in [1500, 1800]$

5. ✔ $C_A(t) = 0.15t + 150$, for all $t \in [1000, 1800]$

Question Number : 84

Correct Marks : 3

Question Label : Multiple Select Question

Let us define a function $f : \mathbb{N} \to \mathbb{N}$ such that $f(0) = 0$, $f(1) = 1$, and $f(n) = f(n-1) + f(n-2)$ for all $n \geq 2$. Define the following sets

- $S_1 := \{n \mid f(n) \text{ is even}, n \leq 10\}$
- $S_2 := \{n \mid f(n) \text{ is multiple of } 3, n \leq 10\}$

Which of the following is (are) true?

Options :

1. ✘ Cardinality of $S_1 \setminus S_2$ is 1

2. ✔ Cardinality of $S_1 \cap S_2$ is 1

3. ✔ Cardinality of $S_2 \setminus S_1$ is 2

4. ✔ Cardinality of $S_1 \cup S_2$ is 6

Question Number : 85

Correct Marks : 2

Question Label : Short Answer Question

Points $A\,(4, 4)$, $B\,(-3, -3)$, and $C\,(m, n)$ are collinear. If points $D\,(-2, 2)$, $E\,(-5, 5)$, and C are also collinear, then what will $m - n$ be?

NOTE: Enter your answer to the nearest integer.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

0

Question Number : 86

Correct Marks : 2

Question Label : Short Answer Question

A study conducted at a factory manufacturing chemicals C_1 and C_2 yielded the following results. If a worker is exposed to either C_1 or C_2 (but not both), then the worker is at a low risk of developing a skin disorder. However, if the worker is exposed to both C_1 and C_2, then he is at a high risk of contracting the skin disorder. If out of 370 workers in the factory, 320 are exposed to C_1 and 90 are exposed to C_2, then how many workers are at high risk of developing the skin disorder? (Assume that every worker is exposed to at least one of the two chemicals C_1, C_2.)

NOTE: Enter your answer to the nearest integer.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

40

Question Number : 87

Correct Marks : 3

Question Label : Short Answer Question

A runner targets to dissipate 480 kcal energy per day by running and he stops running as soon as he achieves the target. Let E be the energy left to be dissipated in kcal after running x km, defined as $E = -7.5(x^2 - 64)$. He practices on a track of perimeter 250m. How many rounds does he run per day if he achieves his target?

NOTE: Enter your answer to the nearest integer.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

32

Question Number : 88

Correct Marks : 4

Question Label : Short Answer Question

A sponsor organized a cricket tournament consisting of exactly 72 matches in which each participating teams played with every other team exactly 2 times. How many teams participated?

NOTE: Enter your answer to the nearest integer.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

9

Question Number : 89

Correct Marks : 5

Question Label : Short Answer Question

A gateway is constructed in the shape of a parabola. The road through the gateway has a width of 10m and the maximum height of the gateway is 5m as shown in Figure 1. A container truck of width 4m and uniform height tries to pass through the gateway. What is the maximum possible height of the truck so that it just touches the wall of the gateway?(in m)
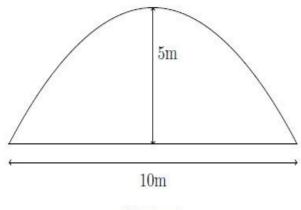

Figure 1

NOTE: Enter your answer in one decimal place.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

4.2

Question Numbers : (90 to 92)

Question Label : Comprehension

Use the following information for solving the given subquestions.

Anthropological detectives measure the lengths of dried bones to estimate the living height (the height of the subject when he or she was alive) of their fossilised subject. Table 2 shows the formulas to calculate the height (H) (in inches) based on the lengths (in inches) of the bones: femur (f), humerus (h), radial bone (r), and tibia (t).

Male	Female
$H = 1.9f + 32$	$H = 1.9f + 28$
$H = 2.9h + 27$	$H = 2.7h + 28$
$H = 3.2r + 33.8$	$H = 3.3r + 32$
$H = 2.3t + 31$	$H = 2.3t + 29$

Table 2: Formulas to calculate the height

Sub questions

Question Number : 90

Correct Marks : 3

Question Label : Short Answer Question

A 14-inch humerus bone from a male subject has been found. What will be the error if the bone belongs to a 66-inch tall male subject?

NOTE: Enter your answer in one decimal place.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

1.6

Question Number : 91

Correct Marks : 5

Question Label : Multiple Select Question

A student calculates the living height of a person using the formula

$H = 0.3H_f + 0.2H_h + 0.2H_r + 0.3H_t,$

where H_f, H_h, H_r, and H_t are the heights calculated by f, h, r, and t respectively.

Choose the correct set of options.

Options :

1. ✖ $H = 0.57f + 0.58h + 0.64r + 0.69t + 122.8$ for male

2. ✖ $H = 0.57f + 0.54h + 0.66r + 0.69t + 117$ for female

3. ✔ $H = 0.57f + 0.58h + 0.64r + 0.69t + \ 31.06$ for male.

4. ✔ $H = 0.57f + 0.54h + 0.66r + 0.69t + 29.1$ for female

5. ✖ $H = 0.57f + 0.54h + 0.66r + 0.69t$ for male

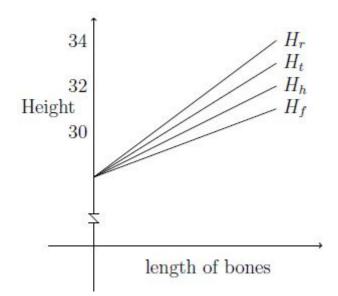6. ✖ $H = 0.57f + 0.58h + 0.64r + 0.69t + 122.8$ for female
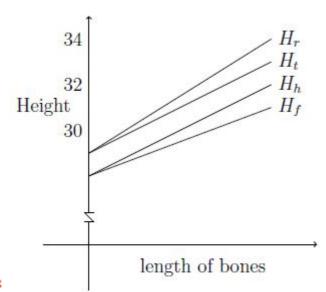
Question Number : 92

Correct Marks : 3

Question Label : Multiple Choice Question

Choose the best representation of height (H) of a female person (calculated with respect to the length of the bones) versus the length of the bones $(f, h, r,$ and $t)$ for a female.
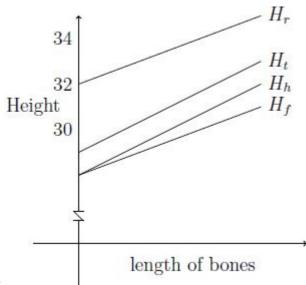
Options :

1. ✖

34

32

Height

30

H_r
H_t
H_h
H_f

length of bones

34

32

Height

30

H_r
H_t
H_h
H_f

length of bones

2. ✖

34

32

Height

30

H_r

H_t
H_h
H_f

length of bones

3. ✔

4. ✖