13. (a) CTS Test 13

Test Summary

- No. of Sections: 4
- No. of Questions: 82
- Total Duration: 105 min

Section 1 - Quantitative aptitude

Section Summary

- No. of Questions: 25
- Duration: 25 min

Additional Instructions:

None

Q1. Product of 2 odd numbers is :

- Always odd
- Always even
- Sometimes Odd & Sometimes even
- Divisible by 6.

Q2. A number when divided by 5 leaves a reminder 2,when the square of the number is divided by 5 the remainder will be:

- 4
- 2
- 1
- 3

Q3. What is the value of $(a^3)^5 / (a^2)^4$

- 7a
- a^7
- a^{-7}
- None of the above

Q4. 7a+4 x 5b = 1715, then ab=

0

2

-1

4

Q5. The ascending order of rational numbers -7/10,-5/8,-2/3 is:

-7/10,-2/3,-5/8

-7/10,-5/8,-2/3

-5/8,-7/10,-2/3

-2/3,-5/8,-7/10

Q6. Number 1is a

Prime number

Composite number

Positive integer

Both a & c

Q7. If $2^{2n-1} = (1/ 8^{n-3})$ then the value of n is

3

2

0

-2

Q8. What should be multiplied by 2880 to make it a perfect square?

2

3

5

7

Q9. What is the least number which should be added to 0.0282 to make it a perfect square?

.0007

.0042

.0002

.0003

Q10. Steward assigns 1/8 th of his monthly salary for food. Steward?s total food bill for month is Rs.6500. What is Steward?s yearly salary?

Rs.9750

Rs.12174

Rs.5,76,000

Rs.6,24,000

Q11. A juice container was 4/5 full. Ravinder poured 4 glasses from it and then poured two glasses back. The container now is 3/4 full. How many glasses can be filled if the entire container is emptied?

32

36

44

40

Q12. A bread making machine can make bread of 50 kg dough in 3 mins. How many such machines are required to make bread of 300 kg dough in 6 mins?

6

3

4

5

Q13. Sumithra put five grams of seeds in a bird feeder on Sunday.On Wednesday half of the seeds were eaten,so she put 3 more grams. On Friday she found half were eaten.How many grams were eaten in that week?

3 g

2.5 g

2.75 g

5.25 g

Q14. $x^4y - xy^4$ =

$xy\,(x - y)(x^2 + xy + y^2)$

$xy\,(x + y)(x^2 - xy + y^4)$

$x\,(xy - 1)(x^2 - xy + y)$

$(x^3 + y^2)\,xy$

None of the above

Q15. 106. What is the remainder if 825 is divided by 7?

25

8

1

0

Q16. A bag contains coins of 1 rupee, 2 rupees, 5 rupees in the ratio 4:8:5. The total amount is Rs.90. The number of 5 rupee coins is?

8

16

15

10

Q17. Which of the following is true for the value of 0.999?.?

It is equal to 1

It is less than 1

It is equal to 0.9

None of the above

Q18. An investment earns 4 paise per rupee invested. If at the end of the year the interest earned by an investment is Rs.100, then the investment is equal to:

2000

2200

1000

2500

4000

Q19. The sum of the digits of a three digit number is subtracted from the number.The resulting number is divisible by

6

9

Both 6 & 9

All 3, 6 and 9

Q20. What is the difference between the LCM and HCF of numbers 20, 30 and 40?

100

110

120

130

Q21. What sum of money will accumulate Rs. 5300 at 8% interest in 9 months?

5000

5400

4500

4000

Q22. A bank advertises that you can double the money if you invest it with them for 8 years, what is the rate of Interest offered by them?

12.50%

10%

8.50%

14%

Q23. Mumbai Rajdhani express takes 16 hrs to reach Mumbai from Delhi,while Swaraj express takes 20 hrs to reach Mumbai.The ratio of their speeds is?

1:4

4:5

5:4

3:2

Q24. Ram and Ravi were playing with a paper phone, frustums of which are attached to each other by a 95m long string. If both start moving in opposite directions at 18m/min and 20m/min respectively, after how many more mins both have to stop?

2 mins

2.5mins

3mins

3.5mins

Q25.

An Aeroplane flies along the sides of an equilateral triangle with the speeds of 300km/hr, 200km/hr and 240 km/hr. The average speed of the plane while flying along the triangle is?

- 250 km/hr
- 275 km/hr
- 200 km/hr
- 240 km/hr

Section 2 - Verbal Ability

Section Summary

- No. of Questions: 25
- Duration: 25 min

Additional Instructions:

None

Q1. Choose the word which best suits the highlighted word. Birds are **quarantined** to prevent the spread of bird flu.

- Immunized
- Butchered
- Secluded
- Mingled

Q2. (A) cellular mobility for rural women may be at (B) a nascent stage in india,but those who have it(c) sweared by the freedom it has brought them.

- (A)
- (B)
- (C)
- No error

Q3. All the efforts of the batsman went _____vain as the bowlers failed to perform well.

- IN

AND

FOR

OFF

Q4. Give the opposite : STARTLED

amused

relaxed

endless

astonished

Q5. In the question each passage consists of six sentences. The first and the sixth sentences are given in the beginning. The remaining are jumbled up and assigned labels : P,Q,R & S. 1st : Politeness is not a quality possessed by only one nation or race. 6th : In any case, we should not mock at others habits. P : One may observe that a man of one nation will remove his hat or fold his hands by way of greetings when he meets someone he knows. Q: A man of another country will not do so. R: It is a quality to be found among all peoples and nations in every corner of the earth. S: Obviously each person follows the custom of his particular country

RPQS

RPSQ

PRQS

QPRS

Q6. This question a part of the sentance is italicised.Alternative to the italicised part of given which may improve the correct alternative Markets like Janpath and Connaught Place *have a lots of shops selling very trendy clothes*

? Have lots of shops selling.

? Have lot many number of shops selling.

? Have a lot number of shops that were selling

? No improvement needed

Q7. In this question a part of the sentance is italicised.Alternative to the italicised part of given which may improve the correct alternative But which director from Bollywood would remake this film,will be made secret for the time being.

is being kept a secret

is being secret

can be secret

will be kept the secret

Q8. (A) Guilt and self pleasure are (B)two most strong drivers (C) of any act.

A

B

C

No error

Q9. Read the sentence to find out whether there is any grammatical error in it. The error, if any, will be in one part of the sentence. The letter of that part is the answer. Ignore the error of punctuation, if any. (A) Yauhan do not understand(B)the importance of money as(C)he never had to earn himself

A

B

C

No error

Q10. Arrange the fragments A,B,C,D,E and F in order to form a meaningful sentence. A)disappointed if B)not fulfilled C)do not be D)or E)promises are F)friends let you down

CFDAEB

CABDEF

CAFDBE

CAFDEB

CBAEDF

Q11. What were the servants dogs when the robbery _____ places

Take

Took

Was in

Were in

Q12. In this question, a pair of the sentence is italicized. Alternatives to the italicized part are given which may improve the construction of the sentence. Select the correct alternative. What have we got for dinner?

We got for the dinner

We got for a dinner

We gotten for dinner

No change

Q13. The note book used by _____ Ever green society are made by recycled paper.

a

an

the

all

Q14. We as human being get easily _____ by materialistic pleasures of modern age

Distracted

Attentive

Devoted

Diligent

Q15. Read the sentence to find out whether there is any grammatical error in it. The error, if any, will be in one part of the sentence. The letter of that part is the answer. Ignore the error of punctuation, if any. (A)A tie is a very important(B)part of formal dressing(C)for every men.

A

B

C

No change

Q16. Improve the sentence by selecting the correct alternative to the italicized part of the sentence. As per the weather prediction, it will rain heavily for the next one week.

observation

report

forecast

news

Q17. Select the word or phrase which best expresses the meaning of the given word. VANISH

evacuate

decrease

disappear

none

Q18. Select the word or phrase which best expresses the meaning of the given word. PRIMAL

approved

cardinal

precise

permanent

Q19. Select the option that is most nearly OPPOSITE in meaning to the given word. TORTURE

friendly

aid

generous

none

Q20. ____ being poor, kaveri still dresses more appropriately than most of her group mates.

- Despite
- Although
- since
- however

Q21. Synonym:
Sterilize

- Freshen
- potent
- Mitigate
- disinfect

Q22. in the question a part of the sentence is italicized.Alternatives to the italicized part are given which may improve the construction of the sentences select the alternative. The appropriate atmospheric conditions made it feasible for the astronomers to see the stars and they could even distinguish the sizes.

- And even distinguish the sizes
- And they were even
- And he could even distinguish the sizes.
- And even distinguishing the sizes

Q23. The Unique Iron Age Experimental Centre at Lajire,about 40km west of Copenhagen serves as a museum, a classroom and a place to get away from it all.How did people live during the Iron Age?How did they support themselves/What did they eat and how did they cultivate the land?These and myriad of other question prodded the pioneers of the Legree experiment Living in the open and working 10 hours a day,volunteers from all over Scandinavia led by 30 experts, built the first in the anti cent encampment in a matter of months.The house walls were of clay,the roofs of hay -all based on original design.Then came the second stage-getting back to the basics of living.Families were invited to stay in the 'prehistoric village' for a week or two at a tome and rough it Iron Age-style Initially, this experiment proved none too easy for modern Danes accustomed to central heating,but it convinced the central that there was something to the Lejre project.Little by little,the modern iron Agers learnt that their huts were,after all,habitable.The problems were numeouus-smoke belching out from the rough-and-ready fireplaces into the rooms and so on.These problems,however,have led to some discoveries:domed smoke ovens made of clay,for examples give out more heat and consume less fuel than an open fire,and when correctly stoked,they are practically smokeless By contacting other museums, the Legree team has been able to reconstruct ancient weaving looms and pottery kilns. Iron Age dyeing techniques,using local natural vegetation,have also been revived,as have ancient banking and cooking methods
What is the purpose of building the Iron Age experimental center?

- Prehistoric Village where people can stay for a week or two to get away from modern living

Replicate the Iron Age to get a better understanding of the time and people of the ers

To discover the difference between a doomed smoke oven and an open fire to identify the more efficient of the two

Revive activities of ancient women such as weaving,pottery,dyeing,cooking and baking

Q24. The Unique Iron Age Experimental Center at Legree about 40km west of Copenhagen serves as a museum, a classroom and a place to get away from it all.How did people live during the Iron Age?How did they support themselves/What did they eat and how did they cultivate the land?These and myriad of other question prodded the pioneers of the Legree experiment Living in the open and working 10 hours a day,volunteers from all over Scandinavia led by 30 experts, built the first in the anti cent encampment in a matter of months.The house walls were of clay,the roofs of hay -all based on original design.Then came the second stage-getting back to the basics of living.Families were invited to stay in the 'prehistoric village' for a week or two at a tome and rough it Iron Age-style Initially, this experiment proved none too easy for modern Danes accustomed to central heating,but it convinced the central that there was something to the Lejre project.Little by little,the modern iron Ayers learnt that their huts were,after all,habitable.The problems were numerous-smoke belching out from the rough-and-ready fireplaces into the rooms and so on.These problems,however,have led to some discoveries:domed smoke ovens made of clay,for examples give out more heat and consume less fuel than an open fire,and when correctly stoked,they are practically smokeless By contacting other museums, the Legree team has been able to reconstruct ancient weaving looms and pottery kilns. Iron Age dyeing techniques,using local natural vegetation,have also been revived,as have ancient banking and cooking methods

What is the meaning of the sentence 'initially, this experiment proved none too easy for modern Danes accustomed to central heating,but it convinced the center that there was something to the Legree project'?

Even though staying in thr hunts wasn't easy for the modern people the centre saw merit in the simple living within huts compared to expensive apartments

Staying in the hunts was quite easy for the modern people and the centre also saw merits in the simple living within hunts compared to to expensive apartments

The way of living of the Iron Age proved difficult for the people of the modern age who are used to living in luxury

The way of living of the Iron Age proved very easy for the people of the modern age since it was not inside the hunts, and they were anyway used to heated rooms

Q25. AFFABLE(opposite)

rude

ruby

needy

useless

Section 3 - Reasoning Ability

Section Summary

- No. of Questions: 25
- Duration: 25 min

Additional Instructions:

None

Q1. X walks 6 km towards East from point A and from the same point A, Y walks 8 km South. How far are the two friends from each other now?

- 14 km
- 2 km
- 10 km
- 5 km

Q2. Odd man out

- PSRQ
- MNPO
- SVUT
- KNML

Q3. Odd Man Out

- ABIJ
- DEHI
- MNQR
- STWX

Q4. Given signs signify something and on that basis, assume the given statements to be true and find which of the two conclusions I and II is/are definitely true. ?%? denotes ? greater than? ?>? denotes ? equal to? ?=? denotes ?not less than? ?@? denotes ?not equal to? ?#? denotes ?less than? ?*? denotes ?not greater than? Statements : p > s, s @ t, p # r Conclusions: (1) s % r (2) p @ t

- only conclusion 1 is true
- only conclusion 2 is true
- neither conclusion 1 nor 2 is true
- both conclusion 1 and 2 are true

Q5.

- FJN
- HLO
- CGK
- KOS

Q6. If ?Apples are red? is coded as 541, ?My eye swollen? is coded as 927, fear of dark? is coded as 368, them what does ?Apples of my eye? stand for?

- 5692
- 5690
- 5962
- 5672

Q7. If EXAM is coded as FYBN, then TEST is coded as

- NBYF
- UFTU
- SFTS
- SFRS

Q8. 865:532::976:

- 651
- 642
- 521
- 643

Q9. CEGI:JLNP :: QSUW:_____

WCMS

SXBD

XZBD

UZDH

Q10. Who is the nephew of X? Statements: i. Y is sister of X ii. Z is son of Y

Statement I alone is sufficient to answering the problem question.

Statement II alone is sufficient to answering the problem question

Both statements put together are sufficient in answering the problem question.

Both the statements even put together are not sufficient in answering the problem question

Either of the statements is sufficient in answering the problem question.

Q11. What is the Mohan's rank in the class? Statements: i. There are 30 students in the class ii. There are 6 girls who have scored less than Mohan.

Statement I alone is sufficient to answering the problem question.

Statement II alone is sufficient to answering the problem question.

Both statements put together are sufficient in answering the problem question.

Both the statements even put together are not sufficient in answering the problem question

Either of the statements is sufficient in answering the problem question.

Q12. Based on the given passage find out which of the following statements can be inferred from the passage. The company encourages its mangers to interact regularly, without preset agenda to discuss issues concerning the company and the society. This idea has been borrowed from the ancient Indian concept of religious congregation, called satsang. Designations are forgotten during these meetings, hence it is not uncommon in these meetings to find a management trainee questioning the Managing Director on some corporate policy or his knowledge of customers.

The company is concerned about its reputation with its employees

The company believes in fostering the spirit of dialogue without degenerating it into a positioning based debate

The company had some inter personal problem in the past due to which it felt the need for these corporate satsangs

All of these above

Q13. How many sisters does Mamta have? Statements: i. Mamta does not have any brother ii. Mamta's mother have 4 daughter

Statement I alone is sufficient to answering the problem question.

Statement II alone is sufficient to answering the problem question.

Both statements put together are sufficient in answering the problem question.

Both the statements even put together are not sufficient in answering the problem question

Either of the statements is sufficient in answering the problem question.

Q14. **Select the right option from the given alternatives**
Seema told Sanjiv, "The girl I met yesterday at the beach was the youngest daughter of the brother-in-law of my friend's mother." How is the girl related to Seema's friend?

Niece

Friend

Aunt

Cousin

Q15. If A # B means A is father of B; A $ B means A is mother of B, A @ B means A is sister of B, then how is B related to X in X $ K # A @ B?

Grandson

Grand-daughter

Nephew

Data Inadequate

Q16. Select the right option from the given alternatives
Pointing to a girl, Arvind said "She is daughter of the only child of my father," How is Arvind's wife related to that girl?

Daughter

Mother

Aunt

Sister

None of these

Q17. If 'A x D' means 'A is the sister of D', 'A + D' means 'D is the daughter of A' and 'A ÷ d' means 'A is the mother of D', then how will 'N is the aunt of M' be denoted?

M + L XN

M ÷ L +N

L X N÷M

N X L ÷ M

Q18. Pointing to a man, a lady said, "he is the son of my husband's daughter". How is the man related to this lady?

Grandson

son

daughter

none of these

Q19. Pointing to a girl, Mihir said, "She is the only daughter of mygrandfather's only child." How is the girl related to Mihir?

Daughter

Niece

Sister

Data in adequate

Q20. Pointing out to a photograph, Swati said, "he is the uncle of mybrother's sister". How is the person in photograph related to Swati?

uncle

father-in-law

brother

Grandfather

Q21. A + B means A is the brother of B; A - B means A is the wife of B;and A * B means A is the mother of B. which of the following means M is the brother-in-law of P?

- M − N + P
- M + N − P
- M * N + P
- M − P * N

Q22. In a joint family, there are father, mother, 3 married sons and one unmarried daughter. Of the sons, two have 2 daughters each and one has a son. How many female members are there in the family?

- 2
- 3
- 6
- 7
- 9

Q23. Pointing to a photograph, a lady said, "he is the brother of my husband's father's son". How is the man related to the lady?

- brother-in-law
- brother
- uncle
- nephew

Q24. Read the following information carefully to answer the question:P X Q mean "P is sister of Q"

P ÷ Q means "P is mother of Q"P + Q means "P is brother of Q"P - Q means "p is father of Q"
Which of the following represent W is grandfather of H?

- W + T −H
- W ÷ T −H
- W * T+H
- W ÷ T +H
- None of these

Q25. ***Read the following information carefully to answer the question:***
*P * Q mean "P is sister of Q"*
P ÷ Q means "P is mother of Q"
P + Q means "P is brother of Q"
P - Q means "p is father of Q"

The expression means "S ÷ T - H * V - N"?

- S is grandmother of N
- S is greater grandmother of N
- S is mother of V
- None of these

Section 4 - Automata Fix

Section Summary

- No. of Questions: 7
- Duration: 30 min

Additional Instructions:

None

Q1. The method **countElement(int arr[],int n)** of class ElementCount is supposed to return the number of elements in the input array arr which are greater than twice the input number n . find the logical error in the function **countElement(int arr[], int n)** and fix it

```
#include<stdio.h>
int countElement(int arr[],int ele,int len)
{
int count=0;
  for(int i=0;i<len;i++)
  {
    if(arr[i]>ele)
    {
      count++;
    }
  }
  return count;

}
int main()
{
  int n;
  scanf("%d",&n);
  int arr[n];
  for(int i=0;i<n;i++)
  {
    scanf("%d ",&arr[i]);
  }
  int val;
  scanf("%d",&val);
  printf("%d",countElement(arr,val,n));
}
```

Sample Input

```
5
1 2 3 4 5
2
```

Sample Output

```
1
```

Time Limit: 2 ms Memory Limit: 256 kb Code Size: 256 kb

Q2. The function **matrixsum(int *matrix,int row,int col)** is supposed to return the sum of elements of the input array matrix having number of rows and **col** number of columns. complete the function/method **matrixsum(int* matrix, int row, int col)** to get the

desired output.

Sample Input

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

Sample Output

```
45
```

Time Limit: 2 ms Memory Limit: 256 kb Code Size: 256 kb

Q3. The function **matrixsum(int **matrix,int m,int n)** is supposed to return the sum of elements of the input array matrix having m rows and n columns. The logic is provided. But it is not giving the desired output due to a logical error. Find the logical error and fix it.

Program :

```
#include<stdio.h>
#define SIZE 100
int matrixsum(int row,int col)
{
   int sum=0;
   int arr[row][col];
   for(int i=0;i<row;i++){
   for(int j=0;j<col;j++)
   {
       scanf("%d",&arr[i][j]);
   }
   }
   for(int i=0;i<col;i++){
       for(int j=0;j<i;j++){
           sum=sum+arr[i][j];
       }
   }
   return sum;
}
int main()
{
   int m,n;
   scanf("%d %d",&m,&n);


   printf("%d",matrixsum(m,n));
}
```

Sample Input

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

Sample Output

```
45
```

Time Limit: 2 ms Memory Limit: 256 kb Code Size: 256 kb

Q4. Generate all the prime numbers below a given **N**

Sample Input

```
30
```

Sample Output

```
2 3 5 7 11 13 17 19 23 29
```

Time Limit: 2 ms Memory Limit: 256 kb Code Size: 256 kb

Q5. The function **pyramid(int n)** is a function that will print a reverse character pyramid pattern like the below one. Find the logical error to get the desired output

Input:

5

Output:

ABCDEFGHIJ
ABCDEFGH
ABCDEF
ABCD

AB

```
#include<stdio.h>
void pyramid(int n)
{
   int i, j, num, gap;
   for (i = n; i >= 1; i--) {
      for (gap = n - 1; gap >= 1; gap--) {
         printf(" ");
         printf(" ");
      }
      num = 'A';
      for (j = 1; j <= i; j++) {
printf("%c",num++);
      }
      for (j = i - 1; j >= 0; j--) {
         printf("%c",num++);
      }
      printf("\n");
   }
}
int main()
{
   int n;
scanf("%d",&n);
   pyramid(n);
   return 0;
}
```

Sample Input

```
5
```

Sample Output

```
ABCDEFGHIJ
  ABCDEFGH
    ABCDEF
      ABCD
```

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q6. 1. The method **removeElement(int arr[],int element)** of class **ShortArray** takes an array arr as an input.It is supposed to return an array removing the integer if it is present in the input array arr. If the given integer is not in the array, then this function should return the input array arr.

The function compiles successfully but fails to return the desired result due to logical erros

Your task is to debug the program to pass all the test cases

Assumptions
The input index is always a non negative integer.
Zero based indexing is followed to access array elements.

Test case 1:

Input:
[1,2,3,4,5,6,7,8,9],3

Expected return value:
[1,2,3,5,6,7,8,9]

Test case 2:

Input:
[11,23,12,34,54,32],6

Expcted return value:
[11,23,12,34,54,32]

PROGRAM:

```
public class ShortArray{
public static int[] removeElement(int arr[],int n,int x){
if (arr[n-1] == x)
return (n-1);
int prev = arr[n-1], i;
for (i=n-2; i>=0 && arr[i]!=x; i--)
{
int curr = arr[i];
arr[i] = prev;
prev = curr;
}
```

```
if (i < 0)
return 0;
arr[i] = prev;

return (n-1); }
}
```

Sample Input

```
5
1 2 3 4 5
3
```

Sample Output

```
1 2 4 5
```

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q7. Below is the Pyramid pattern . Entire snippet is provided and there exist one logical error in a single line . Find the line and rectify it. Take the below snippet as a reference

input :

5

output :

```
    *
   ***
  *****
 *******
*********
```

```
#include<stdio.h>
int PatternPyramid(int rows)
{
  int i,space,k=0;
  for(i=1; i<=rows; ++i, k=0)
  {
    for(space=1; space<=rows; ++space)
    {
      printf(" ");
    }
    while(k != 2*i-1)
    {
      printf("* ");
      k++;
    }
    printf("\n");
  }
}
int main()
{
    int rows;
    scanf("%d",&rows);
    PatternPyramid(rows);
    return 0;
}
```

Sample Input

```
5
```

Sample Output

```
        *
      * * *
    * * * * *
  * * * * * * *
```

Time Limit: 50 ms Memory Limit: 256 kb Code Size: 256 kb

Answer Key & Solution

Section 1 - Quantitative aptitude

Q1

Always even

Solution

Q2

4

Solution

Q3

a^7

Solution

Nil

Q4

-1

Solution

Nil

Q5

-7/10,-2/3,-5/8

Solution

Q6

Positive integer

Solution

Q7

2

Solution

Nil

Q8

5

Solution

Q9

.0007

Solution

Q10

Rs.6,24,000

Solution

Nil

Q11

40

Solution

Q12

4

Solution

Nil

Q13

5.25 g

Solution

Q14

$xy\ (\ x - y\ )(\ x^2 + xy + y^2\ )$

Solution

Nil

Q15

1

Solution

Q16

10

Solution

Nil

Q17

It is less than 1

Solution

Q18

2500

Solution

Nil

Q19

9

Solution

Q20

110

Solution

Q21

5000

Solution

Nil

Q22

12.50%

Solution

Nil

Q23

5:4

Solution

Nil

Q24

2.5mins

Solution

Nil

Q25

240 km/hr

Solution

Nil

Section 2 - Verbal Ability

Q1

Secluded

Solution

Q2

(B)

Solution

Q3

IN

Solution

NIL

Q4

relaxed

Solution

Q5

RPQS

Solution

NIL

Q6

? Have lots of shops selling.

Solution

Q7

is being kept a secret

Solution

Q8

B

Solution

Nil

Q9

A

Solution

Nil

Q10

CAFDEB

Solution

Q11

Took

Solution

Q12

We got for the dinner

Solution

Q13

an

Solution

Nil

Q14

Distracted

Solution

Q15

C

Solution

Q16 forecast

Solution

Q17 disappear

Solution

Q18 cardinal

Solution

Q19 friendly

Solution

Q20 Despite

Solution

Q21 disinfect

Solution

NIL

Q22 And they were even

Solution

Q23

Replicate the Iron Age to get a better understanding of the time and people of the ers

Solution

Option 2 is the correct answer.Last paragraph in the passage tells that iron age techniques and natural vegetation is revived.

Q24

Staying in the hunts was quite easy for the modern people and the centre also saw merits in the simple living within hunts compared to to expensive apartments

Solution

Q25

rude

Solution

(opposite)

Section 3 - Reasoning Ability

Q1

10 km

Solution

Nil

Q2

MNPO

Solution

Nil

Q3

ABIJ

Solution

Nil

Q4

only conclusion 2 is true

Solution

Nil

Q5

CGK

Solution

Nil

Q6

5692

Solution

Nil

Q7

UFTU

Solution

Nil

Q8

643

Solution

Nil

Q9

XZBD

Solution

Nil

Q10

Both statements put together are sufficient in answering the problem question.

Solution

Nil

Q11

Both the statements even put together are not sufficient in answering the problem question

Solution

Nil

Q12

All of these above

Solution

Nil

Q13

Statement II alone is sufficient to answering the problem question.

Solution

Nil

Q14

Cousin

Solution

No Solution

Q15

Data Inadequate

Solution

No Solution

Q16

Mother

Solution

No Solution

Q17

N X L ÷ M

Solution

No Solution

Q18

Grandson

Solution

No Solution

Q19

Sister

Solution

No Solution

Q20

uncle

Solution

No Solution

Q21

M + N − P

Solution

No Solution

Q22

9

Solution

No Solution

Q23

brother-in-law

Solution

No Solution

Q24

None of these

Solution

No Solution

Q25

S is greater grandmother of N

Solution

No Solution

Section 4 - Automata Fix

Q1

Test Case

Input	Output
10 11 12 13 14 15 16 17 18 19 20	4

8

Weightage - 50

Input

Output

```
6
12  12  13  14  23
6
```

```
6
```

Weightage - 50

Sample Input

Sample Output

```
5
1  2  3  4  5
2
```

```
1
```

Solution

Header

```
#include<stdio.h>
int countElement(int arr[],int ele,int len)
{
```

Footer

```
}
int main()
{
    int n;
    scanf("%d",&n);
    int arr[n];
    for(int i=0;i<n;i++)
    {
        scanf("%d ",&arr[i]);
    }
    int val;
    scanf("%d",&val);
    printf("%d",countElement(arr,val,n));
}
```

Q2

Test Case

Input

Output

2 2 1 4 6 8	19

Weightage - 25

Input	Output
5 5 1 2 3 67 67 90 87 65 43 21 1 2 3 4 5	511

Weightage - 75

Sample Input	Sample Output
3 3 1 2 3 4 5 6 7 8 9	45

Solution

Header

```
#include<stdio.h>
#include<stdlib.h>
#define SIZE 100
int matrixsum(int* arr,int row,int col)
{




    int sum=0;
    for (int i = 0; i < row; i++)
      for (int j = 0; j < col; j++)
        sum=sum+ *(arr + i*col + j);
    return sum;
```

Footer

```
}
int main()
{
    int row,col;
    scanf("%d %d",&row,&col);
    int *arr = (int *)malloc(row * col * sizeof(int));
    int i, j, count = 0;
    for (i = 0; i <row; i++)
      for (j = 0; j<col; j++)
         scanf("%d",(arr + i*col + j));

    printf("%d",matrixsum(arr,row,col));
}
```

Q3

Test Case

Input	Output

```
2
1 4
6 8
```

```
10
```

Weightage - 25

Input

Output

```
5 5
1 2 3 67 67
90 87 65 43 21
1 2 3 4 5
```

```
511
```

Weightage - 75

Sample Input

Sample Output

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

```
45
```

Solution

Header

```
#include<stdio.h>
#define SIZE 100
int matrixsum(int row,int col)
{
    int sum=0;
    int arr[row][col];
    for(int i=0;i<row;i++){
    for(int j=0;j<col;j++)
    {
        scanf("%d",&arr[i][j]);
    }
    }
    for(int i=0;i<row;i++){
        for(int j=0;j<col;j++){
            sum=sum+arr[i][j];
        }
    }
    return sum;
```

Footer

```
}
int main()
{
    int m,n;
    scanf("%d %d",&m,&n);

    printf("%d",matrixsum(m,n));
}
```

Q4

Test Case

Input

```
100
```

Output

```
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59
```

Weightage - 25

Input

```
100000
```

Output

```
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59
```

Weightage - 50

Input

```
1000000
```

Output

```
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59
```

Weightage - 25

Sample Input

```
30
```

Sample Output

```
2 3 5 7 11 13 17 19 23 29
```

Solution

Header

```
#include<stdio.h>
#include<math.h>
int main(){
    int n;
    scanf("%d",&n);
```

```
#include<stdio.h>
#include<math.h>
int main(){
    int n;
    scanf("%d",&n);
    int arr[n-1];
    int sqr=sqrt(n)+1;
    for(int i=0;i<n-1;i++){
        arr[i]=i+2;
    }
  for(int i=0;arr[i]<=sqr;i++){
      if(arr[i]==0){
          continue;
      }
      for(int j=i+arr[i];j<n-1;j+=(arr[i])){
          arr[j]=0;
      }
```

```
  }
for(int i=0;i<n-1;i++){
    if(arr[i]!=0){
        printf("%d ",arr[i]);
    }
}
}
```

Footer

```
}
```

Q5

Test Case

Input

```
6
```

Output

```
ABCDEFGHIJKL
  ABCDEFGHIJ
    ABCDEFGH
      ABCDEF
```

Weightage - 50

Input

```
9
```

Output

```
ABCDEFGHIJKLMNOPQR
  ABCDEFGHIJKLMNOP
    ABCDEFGHIJKLMN
      ABCDEFGHIJKL
```

Weightage - 50

Sample Input

```
5
```

Sample Output

```
ABCDEFGHIJ
  ABCDEFGH
    ABCDEF
      ABCD
```

Solution

Header

```
#include<stdio.h>
void pyramid(int n)
{
```

```
    int i, j, num, gap;
    for (i = n; i >= 1; i--) {
        for (gap = n - 1; gap >= i; gap--) {
            printf(" ");
            printf(" ");
        }
        num = 'A';
        for (j = 1; j <= i; j++) {
            printf("%c",num++);
        }
        for (j = i - 1; j >= 0; j--) {
             printf("%c",num++);
```

```
        }
        printf("\n");
    }
```

Footer

```
}
int main()
{
    int n;
    scanf("%d",&n);
    pyramid(n);
    return 0;
}
```

Q6

Test Case

Input

```
6
2 6 8 9 3 7
3
```

Output

```
2 6 8 9 7
```

Weightage - 50

Input

```
5
1 8 7 6 9
9
```

Output

```
1 8 7 6
```

Weightage - 50

Sample Input

```
5
1 2 3 4 5
3
```

Sample Output

```
1 2 4 5
```

Solution

Header

```
#include<stdio.h>
int deleteElement(int arr[], int n, int x)
{




if (arr[n-1] == x)
    return (n-1);
int prev = arr[n-1], i;
for (i=n-2; i>=0 && arr[i]!=x; i--)
{
    int curr = arr[i];
    arr[i] = prev;
    prev = curr;
}
```

```
if (i < 0)
    return 0;
arr[i] = prev;

return (n-1);
```

Footer

```
}
int main()
{
        int n;
        scanf("%d",&n);
    int arr[n];
        for(int i=0;i<n;i++){
                scanf("%d ",&arr[i]);
        }
    int x;
        scanf("%d",&x);
    n = deleteElement(arr, n, x);
    for (int i=0; i<n; i++)
    printf("%d ",arr[i] );

    return 0;
}
```

Q7

Test Case

Input

```
10
```

Output

```
          *
        * * *
      * * * * *
    * * * * * * *
```

Weightage - 50

Input

```
7
```

Output

```
        *
      * * *
    * * * * *
  * * * * * * *
```

Weightage - 25

Input

```
8
```

Output

```
        *
      * * *
    * * * * *
  * * * * * * *
```

Weightage - 25

Sample Input

```
5
```

Sample Output

```
        *
      * * *
    * * * * *
  * * * * * * *
```

Solution

Header

```
#include<stdio.h>
int PatternPyramid(int rows)
{
```

```
#include<stdio.h>
int PatternPyramid(int rows)
{
    int i,space,k=0;
    for(i=1; i<=rows; ++i, k=0)
    {
        for(space=1; space<=rows-i; ++space)
        {
            printf("  ");
        }
        while(k != 2*i-1)
        {
            printf("* ");
            ++k;
        }
        printf("\n");
    }
}
int main()
{
    int rows;
    scanf("%d",&rows);
    PatternPyramid(rows);
    return 0;
}
```

Footer

```
}
int main()
{
    int rows;
    scanf("%d",&rows);
    PatternPyramid(rows);
    return 0;
}
```