Section 1 - Cognitive

Section Summary

- No. of Questions: 50

- Duration: 50 min

Additional Instructions:

None

Q1.

The ratio of the current ages of Ajay and Vijay is 7:4. The ratio between Ajay's age 6 years ago and Vijay's age 6 years from now is 1:1. Find the ratio between Ajay's age 12 years hence and Vijay's age 12 years ago.

12:1

10:1

1:1

None of these

Q2.

The combined age of husband and wife on their 20th wedding anniversary was twice than it was at the time of wedding. If the husband is 3 years older than his wife. How old was he at the time of his marriage?

29 years

38.5 years

21.5 years

32 years

None of these

Q3.

How long will it take to row 20 km upstream if one can row 10 km in 10 minutes in still water and the same distance in 8 minutes with the stream?

12 min

24 min

26.67 min

24 min

Q4.

A boat running upstream takes 8 hours and 48 minutes to cover a certain distance, while it takes 4 hours to cover the same distance running downstream. What is the ratio between the speed of the boat and the speed of the water current respectively?

5:4

8:3

7:6

4:5

Q5.

If one car covers 24 km per litre of petrol and another car covers 18 km per litre of petrol, the shortest distance that they can travel with minimum number (integral) of litres of petrol in their tanks is

36 km

72 km

48 km

24 km

Q6.

Find the maximum power of 91 in 91! ?

1

4

5

7

Q7.

Product of three numbers is 3240 and HCF is 3. Find their LCM

144

180

240

360

Q8.

How many words can be made out of the letters of word 'POUNDING' such that all vowels occupy odd places?

1440

1400

7200

5600

Q9.

Find the number of triangles that can be formed by joining the 6 non-collinear points on a plane.

| 18 |

| 20 |

| 24 |

| 36 |

Q10.

In what time will a 180-metre long train running at 24 meters/Sec cross a 252-metre long bridge?

| 9.8 sec |

| 12.1 sec |

| 16 sec |

| 18 sec |

Q11.

A train starts from Delhi at 6:00 a.m. and reaches Meerut at 10 a.m. The other train starts from Meerut at 8 a.m. and reaches Delhi at 11:30 a.m. If the distance between Delhi and Meerut is 200 km, then at what time did the two trains meet each other?

| 7:56 am |

| 8:15 am |

| 8:40 am |

| 8:56 am |

Q12.

A car starts from A to reach B travelling 20 km an hour.1 1/2 hours later another car starts from A and travelling at the rate of 30 km an hour reaches B 2 1/2 hours before the first car. Find the distance from A to B.

| 280 km |

| 260 km |

| 240 km |

| 190 km |

Q13.

37 workers makes 925 shirts in 35 hours. Find the number of shirts made by 28 workers in 24 days.

| 240 |

360
480
720

Q14.
A and B took a job for Rs. 7200. A alone can do it in 12 days. B alone can do it in 16 days.
They completed the work in 6 days with the help of C. Find the share of C.

Rs. 1200
Rs. 900
Rs. 800
Rs. 600

Q15.
Three numbers are in the ratio 1 : 2 : 3 such that the sum of their squares is 224. The smallest
number is

3
4
5
6

Q16.
Find the missing term:
APK, BQL, CRM, DSN, ?

TEO
ETO
EOT
TOE

Q17.
Find the next term in the following series.

DKY, FJW, HIU, JHS, ?

KGR
LFQ
KFR

LGQ

Q18.
Select the related letters from the given alternatives.
PRLN : XZTV :: JLFH : ?

NPRT

NRPT

NTRP

RTNP

Q19.
L is the daughter of K. L is married to D. B is the son of D. T is married to B. How is D related to T?

Father-in-law

Mother-in-law

Father

Mother

Q20.
' P +Q' means that P is the son of Q, 'P-Q' means that P is the wife of Q, 'P*Q' means that P is the brother of Q, 'P/Q' means that P is the mother of Q and 'P=Q' means that P is the sister of Q. then, what does X+Y-Z mean?

Z is the father of X

Z is the son of X

Z is the uncle of X

Z is the brother of X

Q21.
The angle between the minute hand and the hour hand of a clock when the time is 8:30 is

80 Degrees

75 Degrees

60 Degrees

105 Degrees

Q22.
A clock is set at 5 a.m. The clock loses 16 minutes in 24 hours. What will be the true time when the clock indicates 10 p.m. on 4th day?

9 p.m
10 p.m
11 p.m
12 p.m

Q23.
A, P, R, X, S, and Z are sitting in a row. S and Z are in the centre. A and P are at the ends. R is sitting to the left of A. Who is to the immediate right of P?

A
X
S
Z

Q24.
Six friends are sitting in a circle and are facing the centre of the circle. Deepa is between Prakash and Pankaj. Priti is between Mukesh and Lalit. Prakash and Mukesh are opposite to each other. Who is sitting opposite to Priti?

Prakash
Deepa
Pankaj
Lalit

Q25.
How many children does M have ?
Statements:
I. H is the only daughter of X who is wife of M.
II. K and J are brothers of M.

if the data in **statement I alone are sufficient** to answer the question, while the data in statement II alone are not sufficient in answer the question.
if the data in **statement II alone are sufficient** to answer the question, while the data in statement I alone are not sufficient to answer the question.
if the data in **either in statement I alone or in statement II alone are sufficient** to answer the question.

if the data in **both the statements I and II together are not sufficient** to

answer the question.

Q26.
The following problem has a question and two statements which are labelled as I and II. Use the data given in statements I and II together with commonplace knowledge to decide whether these statements are sufficient to answer the questions.

What is the value of 18x+5?
I. X=2
II. 9x+5=23

If you can get the answer from statement II alone but not from statement I alone.

If you can get the answer from statements I and II together, although neither

statement by itself suffices.

If either statement I or II above is sufficient to answer the question.

If you cannot get the answer from statements I and II together, but need even

more data.

Q27.
Jack walks 1 km towards east and then he turns to south and walks 5 km. Again he turns to east and walks 2 km, after this, he turns to north and walks 9 km. Now how far is he from his starting point?

4 km

2 km

6 km

none of these

Q28.
Eight persons M through T are standing in such a way that O is 20 m apart from N towards West, N is 30 m South with respect to M. M is 40 m towards West with respect to Q. P is 50 m towards South with respect to Q. R is 15 m apart from S towards North. T is 20 m towards East with respect to S. R is 40 m towards West with respect to P.

What is the direction of O with respect to S?

North-West

North

West

Cannot be determined

Q29.
In the question given below is given a statement followed by three conclusions numbered I, II, and III. You have to assume everything in the statement to be true, then consider the three conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement

Statements: No box is toy. All toys are blocks.
Conclusions:
I. Some blocks are toys.
II. Some blocks are boxes.
III. No block is box.

Only I follows

Either II or III follows

Only either II or III, and I follows

None follows

Q30.
The question given below comprises two statements followed by four conclusions numbered. I, II, III and IV. You have to assume both the statements are correct, even if they differ from universally known facts. Go through all the conclusions and then ignoring the universally known facts ascertain as to which of the given conclusions can logically come up from the given statements.

Statements- Some papers are balls.
Ball is not spherical.
Conclusions-
I. Some papers are spherical
II. Some balls are spherical.
III. Some papers are not spherical.
IV. Some balls are papers.

Only III

Only IV

Either III or IV

Only III and IV

Q31.
From the given options choose the one which best expresses the given sentence in active/passive voice:

The boy has rung the bell.

The bell has been rung by the boy.

The bell was being rung by the boy.

The bell was rung by the boy.

The bell has been being rung by the boy.

Q32.
Complete the following sentence by choosing the right option.
The meeting _____ in the conference room.

hold

held

was hold

was held

Q33.
From the given options choose the one which best expresses the given sentence in active/passive voice:

I expect you to complete this work before sunset.

I expect you to be completed this work before sunset.

I am expected you to complete this work before sunset.

You are expected to complete this work before sunset.

You are expected to be completed this work before sunset.

Q34.
Convert the voice of the given statement :

Circumstances will oblige me to go.

I will oblige the circumstances and go.

I shall be obliged to go by the circumstances.

Under the circumstances, I should go

I shall be obliged by the circumstances to go.

Q35.
Fill in the blanks with the correct option given in the option.

The famous pop singer tragically died at age fifty. This was an _____ event for his _____ fans.

awful ... healthy

amazing ... dubious

unthinkable ... devoted

amicable ... strange

Q36.
For the following questions, choose the option that fills up the blanks most suitably.

The political _____ For power has now become totally _____ For the common Indian.

sadism, uninteresting

game, rich

puzzle, sick

gamble, lacklusture

Q37.
Which of the phrases (1), (2), (3) and (4) given below each sentence should replace the underlined phrase to make the sentence grammatically meaningful and correct?

He intends to completing his work by the end of the week.

He intends of completing

He is completing

He intends complete

He intends completing

Q38.
Which of the phrases (1), (2), (3) and (4) given below each sentence should replace the underlined phrase to make the sentence grammatically meaningful and correct?

This man has been arrested under the charge of stealing.

under charge of stealing

on a charge of stealing

with a charge of stealing

in the charge of stealing

Q39.
Choose the option that best replaces the underlined portion.

Astronomers at the observatory have discovered a distant supernova explosion, one that they believe is a type previously unknown to science.

that they believe is

that they believe it to be

they believe that it is of

they believe to be of

Q40.
Arrange the sentences A, B, C, and D in a proper sequence to make a coherent paragraph.

A. There was nothing quite like a heavy downpour of rain to make life worthwhile.
B. We reached the field, soaked to the skin, and surrounded it.
C. The wet as far as he was concerned was ideal.
D. There, sure enough, stood Claudius, looking like a debauched Roman emperor under a shower.

DCBA

BDCA

BADC

BACD

Q41.
In the question below, the passage consists of six sentences. The first and sixth sentences are given in the beginning. The middle four sentences in each have been removed and jumbled up. These are labelled as P, Q, R and S. Find out the proper order for the four sentences.

S1: When a satellite is launched, the rocket begins by going slowly upwards through the air.
P : However, the higher it goes, the less air it meets.
Q : As the rocket goes higher, it travels faster.
R : For the atmosphere becomes thinner.
S : As a result, there is less friction.
S6: Consequently, the rocket still does not become too hot.
The Proper sequence should be:

QPRS

QSPR

PQRS

PQSR

Q42.
Choose the correct antonym of the words.

Propitious

> unfavorable

> elusive

> unorganized

> improvised

Q43.

Substitute the given sentences with one word.

She **makes it certain** that she will never fight with her best friend over a pity thing like this.

> Assures

> Insures

> Ensures

> Seizures

Q44.

Complete the following sentence by choosing the right option.
Maria is married **.......** my cousin.

> with

> for

> to

> into

Q45.

Choose the appropriate article given in the options:
Copper is _____ useful metal.

> a

> an

> the

> zero article

Q46.

Choose the word that best fits the meaning of each sentence.

Bibliophiles wonder if technology will eventually turn books into _____ as out of place as the grammar school slate.

> antiques

redundancies

curiosities

anachronisms

Q47.
Complete the following sentences with the right option
The ___ nature of philosophy calls for a/an ___ explanation of its theories.

Comprehensive ... detailed

Esoteric ... comprehensive

Malicious ... kind

Plebeian ... aristocratic

Common Content:

Read the following passage carefully and answer the respective questions given below each of them.

Musical preferences are as diverse as the people who listen to them. Different types of music have different reputations. Heavy metal music is often labelled as "negative". Yet others find it a harmless form of music like other types of music, such as jazz, blues, and even rap. The distinct style of heavy metal music can be grouped into three main sections. One popular style of heavy metal is death metal. Death metal has a more dark sound and eerie style than other forms of heavy metal. The music itself is fast, heavy, and loud. The images that death metal portrays are death, doom, destruction, suicide, sex, and drugs. Some see these images as harmful or having a negative effect on the listener. Another form of heavy metal music is speed metal. Speed metal has a more upbeat sound than death metal and is not as depressing as death metal. It is fast-paced and has a hard impact. The lead guitar follows a frenetic pace. This is in contrast to death metal which emphasizes rhythm guitar. The last type of heavy metal music is thrash metal. The name refers to both the thrashing sound of the music and the flailing movement of its listeners. The sound is very loud and has the same tone and style of speed metal. These styles, however, attract certain people.
The majority of people who listen to heavy metal music are suburban white males. These males range in ages between 14 and 24. They have a certain style of dress and way of life. They wear dark clothing with morbid images of death and destruction. This clothing can be seen to be a costume that advertises the teens' musical preferences. It is a way of getting attention. Surprisingly, even though the crowds tend to be young, adults are also seen at these concerts. One example of an adult and a parent is Dave Mullins. He likes to take his sons to see death metal shows. Mullins says about death metal, "I did see one band that had a clear bag with a fetus inside it. It looked gross, but it was just a gag. When I'm watching the kids, they're just letting off steam. When I was a kid, we used to beat people up after school. This seems better to me." Of course, not all parents agree with Mullins.
Parents want the best for their children, but sometimes their efforts are not beneficial. When parents nag their children about what they should and should not listen to, kids can become angry and depressed. This possibly can lead to drinking and drug use, and suicide. Parents can blame this behaviour on the music that their kids are listening to. A group of parents formed the Parent Music Resource Center in the '80s. Even the vice-president's wife, Tipper

Gore, got involved. She led the center in the fight against heavy metal music. The center's main goals were to destroy heavy metal music and all other music that had a negative message. They were effective in banning some groups from record stores and cancelling some concerts. However, Tipper Gore's mission failed to kill off heavy metal music. The Parent Music Resource Center still exists, but it is not as powerful as it once was. This group never examined, whether heavy metal music could be a healthy outlet for aggression.

A well-known psychologist from Durham, Stephanie Pinder-Amaker, said that music can influence a person's state of mind. In her studies, she found that "if people listen to music that is faster than their heart rate, such as heavy metal, it increases the heart rate. If you're trying to increase your energy level, it might be a good way to generate excitement." Heavy metal music by increasing the heart rate of its listeners can be seen as a form of exercise or a physical release.

Studies have been done on the effect of heavy metal music. Roe and King, child psychiatrists at the University of Iowa examined the effects, of heavy metal music on teenagers' social behaviour. These studies show that many teens who thought seriously about suicide and abused drugs listened to heavy metal, but they also showed no direct connection between the music and these actions. Another recent survey done, by the University of Iowa reported that teenage female hard rock fans thought about suicide more often than people that listened to other types of music. However, most of the females who thought about suicide were too scared of dying to try it. One positive effect of this music was that even if the teenager was feeling bad and low, listening to his or her favourite music helped him or her feel better again.

Q48.

The period in which the passage may have been written is, most likely

| 1998 A.D |
| 2001 A.D |
| 1991 A.D |
| None of the above |

Q49.

What reason does Dave Mullins proffer in the support of listening of Heavy Metal by young people?

| Freedom of choice |
| Ability-to, understand the music clearly |
| A way of letting off steam |
| Escapism |

Q50.

The passage implicitly hints that ills such as drinking, drug use and suicide attributed by the parents to heavy metal may actually be the results of

| the feeling of emptiness felt by younger people. |
| parents constantly nagging and controlling their children. |

children falling into bad company.

lack of values in the education.

Section 2 - Technical MCQ
Section Summary

- No. of Questions: 40
- Duration: 40 min

Additional Instructions:

None

Q1.
What was Photo Editor renamed to while using Microsoft Office 2003?

Photo Manager

Picture Manager

Photo Editor

Paint Editor

Q2.
Which of the following was the HTML editor associated with Microsoft Office until 2003?

Front Page

Explorer

Web Pag

Dream Weaver

Q3.
Which of these functions is used to land at a specific location in a document?

Table of Contents

Hyper Text

Bookmark

Macro

Q4.
Which if these can we type in the Run dialogue box to start MS Office?

winword.exe

Word.exe

msword.exe

docs .exe

Q5.
Choose a shortcut to open the dialogue box.

F12

Shift + F12

Alt + F12

Ctrl + F12

Q6.
Which option will you choose if you want to copy the formatting of a document that is bold, red in color, with a green background to another paragraph in one go?

Format Button

Format Menu

Format Painter

Format Macro

Q7.
Which of these terms is used to denote a letter and number in the intersecting column and row?

Cell location

Cell position

Cell address

Cell coordinates

Q8.
Which of the following can be termed a collection of information saved as a unit?

Folder

File

Path

File Extension

Q9.
You can relate Microsoft Office to which of these examples?

Closed Source Software

Open Source Software

Horizontal Market Software

Vertical Market Software

Q10.
Which command do you use to save an existing file to a different location?

Save

Save and Replace

Save As

None of the mentioned options

Q11.
Which of the following attributes of the text box control allows you to limit the maximum character?

len

size

max length

None of the mentioned options

Q12.
_____ scaling allows you to use a virtual system to run more virtual machines.

Horizontal

Vertical

Out

None of the mentioned options

Q13.
Scaling _____ indefinitely leads you to an architecture with a large number of servers.

out

in

vertically

None of the mentioned options

Q14.
Which type of Hypervisor is shown in the following figure?

- Type 1
- Type 2
- Type 3
- None of the mentioned options

Q15.
An operating system running on a Type _____ VM is full virtualization.

- 1
- 2
- 3
- None of the mentioned options

Q16.
Which of the following services creates an application hosting environment?

- EBS
- Azure AppFabric
- ESW
- All of the mentioned options

Q17.
_____ Live Services can be used in applications that run in the Azure cloud.

- Microsoft
- Windows
- Yahoo
- Ruby

Q18.
Azure is Microsoft's _____ as a Service web hosting service

- Platform
- Software
- Infrastructure
- All of the mentioned options

Q19.
Which of the following service providers provides the least amount of built-in security?

| SaaS |
| PaaS |
| IaaS |
| All of the mentioned options |

Q20.
Which of the following services need to be negotiated in service-level agreements?

| Logging |
| Auditing |
| Regulatory compliance |
| All of the mentioned options |

Q21.
What will be the output of the following pseudocode when 10, and 20 are passed into the given function?

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

Integer funn(integer p, integer q)
integer r
set r = 1
p= p >> r
q= q>> r
return p + q
end function funn ( )

| 15 |
| 1 |
| 21 |
| -5 |

Q22.
What will be the output of the following pseudocode when a=10, b=13 & c=7?

Integer funn(integer a, integer b, integer c)
if(4 < c)
c= 1 + a
c = c + c + b
end if
return a + b+ c
end function funn ()

58
56
29
55

Q23.
What will be the output of the following pseudocode?

Integer a, k, j, i
set a=10,k= a/4,j=k/1
for (each i from 1 to j)
print i+j
end for

3 3
3 4
4 3
4 4

Q24.
What will be the output of the following pseudocode if x=2 & y=5?

```
1
2
3
4
5
6
7
8
9
integer p(integer x, integer y)
if (y EQUALS 0)
return 1
else if (y mod 2 EQUALS 0)
return p(x, y/2) * (p(x, y/2)
else
return x * p(x, y/2) * p(x, y/2)
end if
end function p()
```

| 32 |
| 81 |
| 36 |
| 27 |

Q25.
What will be the output of the following pseudocode?

```
1
2
3
4
5
6
integer i, k
set k=0
for (each 1 from 3&4 to 15)
k= k+1
end for
print k
```

16
7
8
6

Q26.

What will be the output of the following pseudocode for a = 50?

1
2
3
4
5

integer fun(integer a)
integer b
set b= 10
return a- b
end function fun()

50
60
40
None of the mentioned options

Q27.

What will be the output of the following pseudocode?

1
2
3
4
5
6
7
8
9

integer i,j
set i=0, j=9
do

i= i + j;
if ((j= j - 1) < (i= i + 1))
JUMP OUT OF LOOP
end if
while (i < 5);
print i,j

| 6,6 |
| 5,5 |
| 10,8 |
| 4,4 |

Q28.
What will be the output of the following pseudocode when x=15 and y=20?

1
2
3
4
5
6
7

integer p(integer x, integer y)
if(x&y EQUALS 0)
return 1+x
else
return 1+y
end if
end function p ()

| 11 |
| 10 |
| 21 |
| 20 |

Q29.
What will be the output of the following pseudocode?

1
2

```
integer merge (integer x)
if (x < 2)
merge (merge (x + 1))
end if
return x
end function merge ()
```

2
1
3
4

Q30.
What will be the output of the following pseudocode?

Note: Assume that the outputs are separated by spaces, not new lines.

```
integer number
set number = 1
do
print number
number = number + 1
print number + 1
while (number <=0)
end do while
print number
```

2 1 1
1 0 3
1 1 2

1 3 2

Q31.
What will be the output of the following pseudocode?

	1
	2
	3
	4
	5

Integer a, b, c
Set c = 12, b = 4
a = c / b
c = b >> a
Print c

| 2 |
| 0 |
| 6 |
| 1 |

Q32.
What will be the output of the following pseudocode if a=3 and b=4?

	1
	2
	3
	4
	5
	6
	7
	8
	9

integer funn(integer a, integer b)
if(a + 2 - 1 - 1)
return a
end if
if(b + 1)
return a + 1 + b + 1
end if
return b
end function funn ()

1
2
0
3

Q33.
What will be the output of the following pseudocode if p=29?

1
2
3
4
5
6

integer combine (integer p)
if (p <= 17)
combine (combine (p * 2))
end if
return p + 3
end function combine()

32
12
13
11

Q34.
What will be the output of the following pseudocode?

Note: Assume that the outputs are separated by spaces, not new lines.

1
2
3
4
5
6

integer a, b
for(each a from 1 to 2)

b=17
print b + a- a * a
end for
print a + 1

| 17 4 15 |

| 17 17 16 |

| 1 2 3 |

| 17 15 4 |

Q35.
Which of the following commands allow you to connect to local forwarded ports from remote hosts?

| -l login_name |

| -p port |

| -i identify_file |

| -g |

Q36.
What will be the output of the following pseudocode?

1
2
3
4
5
6
7
8
9
10

Integer pp,qq,rr
Set pp=1, qq=7, rr=3
for (each rr from 4 to 7)
    if ((pp-qq+rr)<(rr-pp))
        continue
    End if
    qq=pp^qq
    pp=(3+12)+rr
End for
Print pp+qq

54
8
35
41

Q37.
What will be the output of the following pseudocode?

```
                                                                              1
                                                                              2
                                                                              3
                                                                              4
                                                                              5
                                                                              6
                                                                              7
                                                                              8
                                                                              9
                                                                              10
                                                                              11
                                                                              12
                                                                              13
```
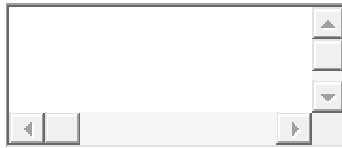
Integer j, m
Set m=1
Integer a[5] = {7, 26, 13, 10, 1}
if (a[0]+a[1]>a[2])
    for (each j from 0 to 1)
        if (a[j+1]>1)
            m=1
        Else
            m=a[j+2]
        End if
    End for
End if
Print m

1
10
-4
6

Q38.
What will be the output of the following pseudocode?

```
                          1
                          2
                          3
                          4
                          5
                          6
                          7
                          8
                          9
                         10
                         11
                         12
```

Integer j, m
Set m=1
Integer a[4] = { 0,2,3,3}
if (a[1]<1)
   if (a[2]<2)
     m=a[3]
   Else
     m=a[1]
   End if
   m=m^a[1]
End if
Print m

| 5 |
| 0 |
| 1 |
| 2 |

Q39.
If you are asked to summarise and report which need data from different sheets you can do it by

| Click on Data- Data tools – Consolidate – Select range |
| Click on Data – Data Tolls – data validation – Consolidate |
| Click on view – Custom views – arrange data |
| Click on review – Smart lookup- Consolidate |

Q40.
Which of the following simply means hardware or software load over web servers, that improves the efficiency of the server as well as the application?

| Amazon Cloud-front |
| Elastic Load Balancer |
| Load Balancing |
| Security Management |

Section 3 - Coding
Section Summary

- No. of Questions: 2
- Duration: 45 min

Additional Instructions:

None

Q1.
Problem Statement

When a particular range is given to Kyle, he writes down all the values within that range which consists of unique digits.

For example, if the range 10-30 is given, he writes down all the values except 11 and 22 since their digits are repeated. However, when large ranges are given, he finds it difficult to identify the numbers. Help him by writing a code that prints all the values in the range that satisfy the given condition.

Input Format
The input consists of the range values x and y.

Output Format
The output displays the values which have unique digits in the range as shown in the sample test case.

Constraints
$0 <= x, y <= 1000$

Sample Input Sample Output
```
10 30
10 12 13 14 15 16 17 18 19 20 21 23 24 25 26 27 28 29 30
```
Time Limit: - ms Memory Limit: - kb Code Size: - kb
Q2.
Problem Statement

You have been given a string having space-separated multiple words. Reprint the string after removing the characters that occur more than once in the string. You are supposed to remove the later occurrences of a character.

Input Format
The input consists of a string that may have white spaces.

Output Format
The output displays the string as per the mentioned specification.

Constraints
$1 <= $ Length of the string $<= 50$

Sample Input Sample Output

```
aaaaaaaaa
a
```
Sample Input Sample Output
```
quick fox jumps lake
quick foxjmpslae
```
Time Limit: - ms Memory Limit: - kb Code Size: - kb

Answer Key & Solution

Section 1 - Cognitive
Q1
10:1

Solution
Let the current age of Ajay and Vijay be 7x and 4x respectively.
(7x – 6) / 4x + 6 = 1/1
7x – 6 = 4x + 6
3x = 12
x = 4
Therefore, (7x + 12) / (4x – 12) = (7*4 + 12) / (4 * 4 -12) = 40/4 = 10/1
Q2
21.5 years

Solution
Let the ages of husband and wife at the time of their 20th wedding anniversary be X years
and Y years respectively and X > Y.
Their combined age = (X + Y) years.
The ages of both husband and wife at the time of wedding will be (X – 20) years and (Y – 20)
years respectively.
Their combined age = (X – 20) + (Y – 20)
= (X + Y – 40) Years
By first information, we have
(X + Y) = 2(X + Y – 40)
X + Y = 2X + 2Y - 80
Therefore, X + Y = 80-------A
and by second information, we have
X – Y =3 ----------------------B
Solving A and B, we get X = 41.5 years
Therefore, the age of husband at the time of their 20th wedding anniversary X = 41.5 years
Age at the time of marriage = 41.5 years – 20 years = 21.5 years.
Q3
26.67 min

Solution
Let x be the speed of man in still water and y be the speed of stream.
∴ Speed of man (x) = 60 km/hr and speed of downstream = 75 km/hr. ∴ Speed of stream = 15
km/hr.
Hence upstream speed = 60 – 15 = 45 km/hr.
So time taken to cover 20 km = 20/45*60 = 26.67min.
Q4

8:3

Solution
Let the man's rate upstream be x kmph and that downstream be y kmph.
Then, distance covered upstream in 8 hrs 48 min = Distance covered downstream in 4 hrs.
X*8 4/5 =4y
44/5x=4y
Y=11/5x.
Required ratio (y+x)/2:(y-x)/2
16x/10:6x/10= 8:3
Q5
72 km

Solution
The consumption of petrol by the two cars = 24 km per litre and 18 km per litre
$24 = 2^3 \times 3$, $18 = 2 \times 3^2$
=> LCM $= 2^3 \times 3^2$
=> The shortest distance that they can travel = 72 Km.
Q6
7

Solution
Factors of 91 are 13 and 7
91! = Q(91/7) + Q(91/49) = 14
91! = Q(91/13) = 7
Since power of 13 is less than 7, maximum power value of 13 should be considered.
91! has the maximum power of 13 is 7
Q7
360

Solution
By Property,
Product of N nos= $(HCF)^{N-1}$ * LCM
Here N=3,
3240= 3^2 * LCM
LCM= 3240/9= 360
Q8
1440

Solution
In POUNDING, there are 8 places
1 2 3 4 5 6 7 8
So for 3 places selection of vowels, we have 1, 3, 5, 7 number places 4C3 ways
Now for arranging these 3 vowels, ways are 3!
Remaining 5 are consonants (in which there are 2 N's) for which 5!/2!
so total ways = 4C3*3!*(5!/2!)
Q9
20

Solution
A triangle can be formed by joining 3 non collinear points,
Hence number of triangles is equal to the number of ways in which 3 points can be selected out of 6 non-collinear points.
Number of triangles = $6C_3 = 20$.
Q10
18 sec

Solution
As we know that Speed × Time = Distance

⇒ Distance to be covered in order to cross the bridge = length of train + length of bridge
= 252 + 180 = 432 m

⇒ Speed = 24 m/s

⇒ Time = 432/24 = 18 Seconds
Q11
8:56 am

Solution
The Speed of the train starting from Delhi = 200/4 = 50 km/h

The Speed of train starting from Meerut = 200/3.5 = 400/7 km/h

Suppose the two trains meet x hours after 6.00 am

Then x * 50 + (x - 2) * 400/7 = 200

or, 350x + 400x - 800 = 1400

or, 750x = 2200

or, x = 2200/750 = 2h 56 min

Hence, the required time = 8:56 a.m.
Q12
240 km

Solution
Let the distance between A and B be x
The second car stars 1.5 hour later and reaches 2.5 hour early then first car
so the time difference is 4 hours.
Thus, x/20 - x/ 30 = 4
or, x = 240
Q13
480

Solution

$M_1 * H_1 / W_1 = M_2 * H_2 / W_2$

$37*35/ 925 = 28*24/W_2$

$W_2 = 28*24*925/ 37*35 = 480$ shirts

Q14

Rs. 900

Solution

A --------------------12

B ------------------- 16

A + B + C---------- 6

LCM(12,16,6) = 48

Efficiency of A = 48/12 = 4

Efficiency of B = 48/16 = 3

Efficiency of A + B + C = 48/6 = 8

4 + 3 + C = 8

C = 1

Share of C = 7200/8 = 900Rs

Q15

4

Solution

Let the 3 numbers be X, 2X and 3X

Given that: $X^2 + (2X)^2 + \{3X\}^2 = 224$.

$X^2 + 4X^2 + 9X^2 = 224$

$=> 14X^2 = 224$

$\rightarrow X^2 = 224/14 = 16$

$\rightarrow X = 4$.

Hence the three numbers are 4 8, 12 and the smallest number is 4.

Q16

ETO

Solution

The first letter of every group is in alphabetical order, i.e. ABCDE Same is the case with II and III letters of the group. Such as PQRST and KLMNO

Q17

LGQ

Solution

The given series is DKY, FJW, HIU, JHS

The first letter of each set is the first letter of the previous set + 2

F = D + 2, H = F + 2, J = H + 2

So the next set first letter will be J + 2 = L

The second letter of each set reduces by 1 in each case

i.e. K, J, I, H

So in the next set it should be G

The third letter of each reduces by 2 in each case

Y - 2 = W, W - 2 = U, U - 2 = S
So the next letter should be S - 2 = Q
The next word should be LGQ
Q18
RTNP

Solution
(D)
J   L   F H
+8 +8 +8 +8
R T N P

Q19
Father-in-law

Solution

Q20
Z is the father of X

Solution
X is the son of Y
Y is the wife of Z.
So directly we can say that Z is the father of X.
Q21
75 Degrees

Solution
Angle traced by hour hand in 17/2 hrs = (360 1/2×172) = 255 deg

Angle traced by min hand in 30 min = (360/60×30) = 180 deg

Therefore, Required angle = (255 - 180) = 75 deg
Q22
11 p.m

Solution
Number of hours between 5 am to 10 pm of 4th day = 72 + 17 = 89 hours.

The clock loses 16 minutes in 24 hours
This clock shows 23 hours 44 mins = Actual correct clock time is 24 hours.

23 + (44/60) = 24 hours.

23 + 11/15 hours = 24 hours

Now, for 1 hour = 24 * 15/(15*23 + 11)

= 24 * (15/356)

So, for 89 hours = 24 * (15/356) * 89 = 6 * 15 = 90 hours

The original timie of clock is 90 - 89 = 1hour. more than current showing time in the clock
= 10pm on 4th day + 1 hour = 11pm on 4th day.
Q23
X

Solution

•	•	•	•	•	•
P	X	S	Z	R	A

X is the right of P
Q24
Deepa

Solution

Hence, Deepa is sitting opposite Priti.
Q25
if the data in **both the statements I and II together are not sufficient** to answer the
question.

Solution
Explanation: From I, we conclude that H is the only daughter of M. But this does not indicate
that M has no son. Hence, I alone is not sufficient.

The information given in II is immaterial. Hence, II alone is not sufficient

Even when combined, II statement is of no help. Hence, cannot be answered
Q26
If either statement I or II above is sufficient to answer the question.

Solution
From I, we can calculate the value as 18*2 + 5 = 41
From II, we can solve both the equations using simultaneous equations.
So, both statements are individually sufficient to answer the question.
Q27
none of these

Solution

Distance of the man from his starting point = $\sqrt{3^2 + 4^2}$
= 5 km
Q28
North-West

Solution

Q29
Only either II or III, and I follows

Solution

Only either II or III ,and I follows

Q30
Only III and IV

Solution
Here 'ball' is the middle term that is distributed in second premise. So as a rule the following conclusions come up from these statements.
1. Some papers are not spherical.
2. Some balls are papers.
3. No spherical (thing) is ball.
4. Some balls are not spherical.
So on above basis the conclusions III and IV in question are valid.

Only III and IV follow.
Q31
The bell has been rung by the boy.

Solution
The given sentence is in the active voice and to transform it into the passive voice, the subject of the given sentence (The boy) comes in the place of the object (the bell) and vice versa. Also, the given sentence is in the present perfect tense.
The passive voice always uses the past participle form of the main verb irrespective of any tense. Only the auxiliary verbs depend upon the sentence given in the active voice.

The correct answer is "The bell has been rung by the boy."
Q32
was held

Solution

No Solution
Q33
You are expected to complete this work before sunset.

Solution
Solution:
The given sentence is in active voice and simple present tense
I expect you to complete this work before sunset.
I expect you to be completed this work before sunset.
you becomes subject and it takes auxiliary verb are
The right answer is **"You are expected to complete this work before sunset."**

Q34
I shall be obliged to go by the circumstances.

Solution
Option A: The sentence is still in the active voice, as the verb form 'will oblige' has not been changed. As a result, the meaning has changed.

Option C: The word form of this sentence has changed, and the sentence still remains in active form.

Option D: The sentence must end with the object 'by the circumstances' since the infinitive phrase 'to go' must be as close to the verb as possible and hence not be at the end.

Q35
unthinkable ... devoted

Solution
The keyword in this question is "tragically died."
This means that the pop singer's death was a negative, upsetting event.
The correct answer choice will also involve negative words.
Unthinkable often has a negative connotation; something is unthinkable when it is too terrible to be imagined.
The singer's devoted fans would be very upset about his death because they were the people who loved him most dearly.
The correct answer is (unthinkable ... devoted).
Q36
gamble, lacklusture

Solution
'Sadism' and 'puzzle' cannot fit into the first blank contextually.

Therefore, those can be sidelined. The word 'rich', does not fit into the second blank. So, gamble and lackluster will fit both the blanks, becomes the apt answer.
Q37
He intends completing

Solution

He intends completing is the correct answer.
The 'to-infinitive' should not be used with the verb, 'intends'.
Q38
on a charge of stealing

Solution
The preposition usage is incorrect in the underlined part of the sentence. Prepositions are short words (on, in, to) that usually stand in front of nouns (sometimes also in front of gerund verbs).
Under the charge of stealing is incorrect.
'Under' is commonly used to indicate position and the usage here is absurd.
Based on the rules to use prepositions, 'with' and 'in' are inappropriate in this context Hence the choices "With the charges of stealing and in the charge of stealing " are incorrect . 'This man has been arrested on a charge of stealing' is correct.
Q39
they believe to be of

Solution
Option (they believe to be of) is the best answer grammatically and contextually.
Options (that they believe is), (that they believe it to be) and (they believe that it is of) wrongly use 'that'. Therefore, they can be ignored.
Option: that they believe is
one already works as pronoun, use of that is not required.
Preposition 'of' is required before 'type'
'believe to be' is idiomatic
Option: that they believe it to be
Similar to the above option.
'it' is redundant
Option: they believe that it is of
'believe to be' is idiomatic
Option: they believe to be of
Correct removal of the duplicate pronoun 'that'
'believe to be' is idiomatic
Preposition 'of' is correctly used
Q40
BDCA

Solution
B is the best opening sentence - it talks about the setting of the scene. This is followed by D, which talks about what happened when they reached the field. This is then followed by C, which talks more about the person introduced in sentence D. The closing sentence is A. So, the correct order of sentences is BDCA.
Q41
QPRS

Solution
The passage is talking about a rocket rising steadily up into the atmosphere. In sentence P we have mentioned the word 'However'. It is a word that denotes a change in the thinking

process. So something should have been given before that would have resulted in the word
'however' in the next line. This is given in sentence Q. So we have QP as a mandatory pair. S
has the phrase 'as a result'. It implies that something is said before it, which would be R.
Hence RS is a mandatory pair.
So option (QPRS) is the answer.
Q42
unfavorable

Solution
Presenting favorable circumstances; auspicious
Q43
Ensures

Solution

No Solution
Q44
to

Solution

No Solution
Q45
a

Solution
Articles are words that define a noun as specific or unspecific.
The articles 'a' and 'an' are used with the name of things that are not specific.
The article 'an' is used with the words that begin with the sound of a vowel.
Any abbreviation having the sound of a vowel will be preceded by the article 'an'.
For example:
He is a MLA. (Wrong)
He is an MLA. (Correct)
In the given sentence, the word 'useful' starts with a vowel but has the sound of a consonant.
Hence, the article 'a' will be the correct choice here.
Q46
anachronisms

Solution
"Anachronism" means a thing belonging or appropriate to a period other than that in which it
exists, especially a thing that is conspicuously old-fashioned. So the answer is
anachronisms.
Q47
Esoteric ... comprehensive

Solution

Philosophy deals with the study of life and mankind. It is not easily understood by everyone. Esoteric means intended for or likely to be understood by only a small number of people with a specialized knowledge or interest. So it required a comprehensive explanation.

Q48.
None of the above

Solution

No Solution

Q49.
A way of letting off steam

Solution

No Solution

Q50.
parents constantly nagging and controlling their children.

Solution

No Solution

Section 2 - Technical MCQ

Q1
Picture Manager

Solution

No Solution

Q2
Web Pag

Solution
Answer - Web Page

Q3
Bookmark

Solution
Answer – Bookmark

Q4
winword.exe

Solution
Answer - winword.exe

Q5
 Ctrl + F12

Solution

No Solution
Q6
Format Painter

Solution
Answer - Format Painter
Q7
Cell coordinates

Solution

No Solution
Q8
File

Solution

No Solution
Q9
Horizontal Market Software

Solution

No Solution
Q10
Save As

Solution

No Solution
Q11
max length

Solution

No Solution
Q12
Vertical

Solution
Vertical
Explanation: Vertical Scaling runs more daemons on the same machine instance, or takes advantage of more RAM (memory) and faster compute times

Q13
out

Solution
out
Explanation: Horizontal scaling allows you to run distributed applications more efficiently and is effective in using hardware more efficiently

Q14
Type 1

Solution
Type1
Explanation: A hypervisor running on bare metal is a Type 1 VM or native VM

Q15
1

Solution
Ans:1
Explanation: Because it is a complete simulation of the hardware that it is running on

Q16
Azure AppFabric

Solution
Azure AppFabric
Explanation: AppFabric is a cloud-enabled version of the .NET Framework

Q17
Windows

Solution
Windows
Explanation: Windows Live Services is a collection of services that runs on Windows Live

Q18
Infrastructure

Solution

No Solution
Q19
IaaS

Solution

No Solution
Q20
All of the mentioned options

Solution

No Solution
Q21
15

Solution

No Solution
Q22
58

Solution

No Solution
Q23
3 4

Solution

No Solution
Q24
32

Solution

No Solution
Q25
16

Solution

No Solution

Q26

40

Solution

No Solution

Q27

10,8

Solution

No Solution

Q28

11

Solution

No Solution

Q29

2

Solution

No Solution

Q30

1 3 2

Solution

No Solution

Q31

0

Solution

No Solution

Q32

3

Solution

No Solution

Q33

32

Solution

No Solution

Q34

17 15 4

Solution

No Solution

Q35

-l login_name

Solution
In Linux, macOS, and other Unix systems, to create a local port forwarding, pass the -L
option to the ssh client:
ssh -L [LOCAL_IP:]LOCAL_PORT:DESTINATION:DESTINATION_PORT
[USER@]SSH_SERVER

Q36

8

Solution

No Solution

Q37

1

Solution

No Solution

Q38

1

Solution
Initially m=1 , first if condition gets failed so no change in m value.Output=1.

Q39

Click on Data- Data tools – Consolidate – Select range

Solution

No Solution
Q40
Load Balancing

Solution

No Solution
Section 3 - Coding

Q1**Test CaseInputOutput**

```
56 194
```
```
56 57 58 59 60 61 62 63 64 65 67 68 69 70 71 72 73 74 75 76 78 79 80 81 82
83 84 85 86 87 89 90 91 92 93 94 95 96 97 98 102 103 104 105 106 107 108
109 120 123 124 125 126 127 128 129 130 132 134 135 136 137 138 139 140
142 143 145 146 147 148 149 150 152 153 154 156 157 158 159 160 162 163
164 165 167 168 169 170 172 173 174 175 176 178 179 180 182 183 184 185
186 187 189 190 192 193 194
```

Weightage - 20InputOutput

```
155 484
```
```
156 157 158 159 160 162 163 164 165 167 168 169 170 172 173 174 175 176
178 179 180 182 183 184 185 186 187 189 190 192 193 194 195 196 197 198
201 203 204 205 206 207 208 209 210 213 214 215 216 217 218 219 230 231
234 235 236 237 238 239 240 241 243 245 246 247 248 249 250 251 253 254
256 257 258 259 260 261 263 264 265 267 268 269 270 271 273 274 275 276
278 279 280 281 283 284 285 286 287 289 290 291 293 294 295 296 297 298
301 302 304 305 306 307 308 309 310 312 314 315 316 317 318 319 320 321
324 325 326 327 328 329 340 341 342 345 346 347 348 349 350 351 352 354
356 357 358 359 360 361 362 364 365 367 368 369 370 371 372 374 375 376
378 379 380 381 382 384 385 386 387 389 390 391 392 394 395 396 397 398
401 402 403 405 406 407 408 409 410 412 413 415 416 417 418 419 420 421
423 425 426 427 428 429 430 431 432 435 436 437 438 439 450 451 452 453
456 457 458 459 460 461 462 463 465 467 468 469 470 471 472 473 475 476
478 479 480 481 482 483
```

Weightage - 20InputOutput

```
465 649
```
```
465 467 468 469 470 471 472 473 475 476 478 479 480 481 482 483 485 486
487 489 490 491 492 493 495 496 497 498 501 502 503 504 506 507 508 509
510 512 513 514 516 517 518 519 520 521 523 524 526 527 528 529 530 531
532 534 536 537 538 539 540 541 542 543 546 547 548 549 560 561 562 563
564 567 568 569 570 571 572 573 574 576 578 579 580 581 582 583 584 586
587 589 590 591 592 593 594 596 597 598 601 602 603 604 605 607 608 609
```

```
610 612 613 614 615 617 618 619 620 621 623 624 625 627 628 629 630 631
632 634 635 637 638 639 640 641 642 643 645 647 648 649
```

Weightage - 30InputOutput

```
45 89
45 46 47 48 49 50 51 52 53 54 56 57 58 59 60 61 62 63 64 65 67 68 69 70 71
72 73 74 75 76 78 79 80 81 82 83 84 85 86 87 89
```

Weightage - 10InputOutput

```
10 100
10 12 13 14 15 16 17 18 19 20 21 23 24 25 26 27 28 29 30 31 32 34 35 36 37
38 39 40 41 42 43 45 46 47 48 49 50 51 52 53 54 56 57 58 59 60 61 62 63 64
65 67 68 69 70 71 72 73 74 75 76 78 79 80 81 82 83 84 85 86 87 89 90 91 92
93 94 95 96 97 98
```

Weightage - 20Sample InputSample Output

```
10 30
10 12 13 14 15 16 17 18 19 20 21 23 24 25 26 27 28 29 30
```

Solution

```c
#include <stdio.h>
#include <math.h>


int unique_digit(int n)
{
    int a[10] = {-1, -1, -1, -1, -1, -1, -1, -1, -1, -1};
    int r, pos = 0;
    while (n)
    {
        r = n % 10;

        if (a[r] == -1)
            a[r] = pos;
        else
            return a[r];

        pos++;
        n /= 10;
    }
    return -1;
}

int main()
{
    int pos, st, end, i, x, y;
    scanf("%d %d", &st, &end);
    for (i = st; i <= end; ++i)
    {
        pos = unique_digit(i);
        if (pos == -1)
        {
```

```
        printf("%d ", i);
        continue;
    }
    else if (pos == 0)
    {
        continue;
    }



    x = pow(10, pos);
    y = i % x;

    i = i + (x - y) - 1;
    }
    return 0;
}
```

Q2Test CaseInputOutput

```
quick brown
quick brown
```

Weightage - 10InputOutput

```
good wood
god w
```

Weightage - 20InputOutput

```
222ty6666
2ty6
```

Weightage - 30InputOutput

```
quick brown fox jumps
quick brownfxjmps
```

Weightage - 40Sample InputSample Output

```
aaaaaaaaa
a
```

Sample InputSample Output

```
quick fox jumps lake
quick foxjmpslae
```

Solution

```
#include <stdio.h>
#include<string.h>
#include<stdlib.h>
int main()
{
    char array[50];
```

```c
    scanf("%[^\n]s ",array);

    for(int i = 0; i < strlen(array); i++) {
        for(int j = i + 1; j < strlen(array); j++) {
            if(array[j] == array[i]) {
                array[j] = '#';
            }
        }
    }

    for(int i = 0; i < strlen(array); i++) {
        if(array[i] != '#') {
            printf("%c", array[i]);
        }
    }

    return 0;
}
```