Section 1 - Cognitive

Section Summary

- No. of Questions: 50
- Duration: 50 min

Additional Instructions:

None

Q1.
A man sells 5 articles for Rs.15 and makes a profit of 20%. Find his gain or loss percent if he sells 8 such articles for Rs.18.40.

- 2.22% profit
- 2.22% loss
- 8% loss
- 8% profit

Q2.
When a plot is sold for Rs. 18,700, the owner loses 15%. At what price must that plot be sold in order to gain 15%?

- Rs. 21,000
- Rs. 22,500
- Rs. 25,300
- Rs. 25,800

Q3.
Bonar and Stanley can paint a masterpiece in 12 days and 60 days respectively. They were contracted to complete the masterpiece together for Rs. 24000. What will be the share of Stanley?

- Rs. 18000
- Rs. 1600
- Rs. 20000
- Rs. 4000

Q4.
Adams and Biden can run a campaign in 8 days, while Carter and Dwight can do the same work in 24 days. In how many days will Adams, Biden, Carter and Dwight do it together?

- 12 days
- 4 days
- 3 days

6 days

Q5.
I rowed against a steam flowing at 1.5 km/hr to a certain point and then turned back stopping 2 km short of the place from where I originally started. If the whole time occupied in rowing is 2 hrs 10 minutes and my uniform speed in still water is 4.5 km/hr, then find how far upstream did I go?

3 km
4 km
5 km
6 km

Q6.
A, B and C start from the same place to walk around a circular path of length 12 km. A walks at the rate of 4 kmph, B at 3 kmph and C at 3/2 kmph. They will meet together at the starting place at the end of :

12 hours
15 hours
24 hours
30 hours

Q7.
Walking 3/5th of his usual speed, Armstrong reached his destination 12 minutes late. Find the time taken on this occasion?

60
70
80
30

Q8.
A man offers 2 flowers on even days, 3 flowers on odd days divisible by 3 and offers 2 extra flowers on the days divisible by 5. How many flowers did he offer in April 1984?

87
88
89
None of these

Q9.

Number 73 in the decimal system is represented as 91 in some other number system; What will be the remainder if a number 364065 of that number system is divided by 7?

- 2
- 3
- 0
- None of these

Q10.
Find the smallest number which when divided by 4, 9, 12 and 16 always leaves the remainder 3.

- 144
- 150
- 153
- 147

Q11.
The number of five digit telephone number having at least one of their digits repeated is

- 90000
- 100000
- 30240
- 62784

Q12.
In how many ways can letters of the word STRANGE be arranged so that the vowels may appear in the odd places?

- 720
- 1092
- 1440
- None of these

Q13.
In a company, there are two vacancies. Vishal and Ram come for an interview. The probability of selection of Vishal is 1/10 and his Ram is 1/8. Find the probability that only one of them be selected?

- 1/5

- 2/3
- 5/7
- 3/5

Q14.
The probability of selecting good guava randomly from a heap of 525 guavas is 0.2. What is the number of good guavas in the heap?

- 118
- 115
- 105
- 101

Q15.
2 trainers are chosen at random to form a committee. These 2 persons were selected from a group of 5 male trainers and 2 female trainers. Find the probability that at least one female trainer is selected.

- 21/11
- 11/21
- 1/21
- 1/22

Q16.
Find the odd one out

- ADP
- QTX
- HKR
- STE

Q17.
A : F :: R :?

- U
- W
- Y
- V

Q18.
Complete the series:
CYD, FTH, IOL, LJP, ?

- OFT
- LET
- OEK
- OET

Q19.
If the first and second letters of the word ‘SUPERCILIOUS’ are interchanged, also the third and fourth letters , fifth and sixth letters and so on , then which would be the seventh letter from the right?

- R
- L
- P
- C

Q20.
Soni, who is Dubey’s daughter, say to Preeti, “Your mother Shyama is the youngest sister of my father, who is third child of Prabhat.” How is Prabhat related to Preeti?

- Uncle
- Father
- Grand Father
- None

Q21.
If A x B means A is the mother of B; A + B means A is the brother B; A - B means A is the father of B and A % B means A is the sister of B, which of the following shows that P is the maternal uncle of Q?

- Q + N x M % P
- P x S % N + Q
- P + M x N % Q
- Q + S - P

Q22.
If the seventh day of a month is three days earlier than Friday, What day will it be on the nineteenth day of the month?

- Sunday
- Tuesday
- Wednesday
- Monday

Q23.
A clock which uniformly loses 5 minutes in a day is set to show the correct time at 4:30 am on the Monday. What will be the correct time, when the, clock shows 4 hours 17 minutes 30 second subsequent Wednesday evening?

- 4:25 pm
- 4:15 pm
- 4:29.5 pm
- 4:30 pm

Q24.
The question below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and Give an answer

Who is tallest among – A, B, C, D, E and F?
Statement I: C is taller than B and shorter than D. D is not the tallest. B is taller than E. F is taller than C and also A.
Statement II: F is taller than C and B both. D is taller than B. E is shorter than B. A is shorter than D.

- If the data in statement I alone are sufficient to answer the question
- If the data in statement II alone are sufficient to answer the question
- If the data either in I or II alone are sufficient to answer the question
- If the data in both the statements together are needed

Q25.
The question below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statement(s) is/are sufficient to answer the question. Read both the statements and give an answer.

What will be the total weight of 10 poles each of the same weight?
I. One-fourth of the weight of a pole is 5 kilograms.
II. The total weight of three poles is 20 kilograms more than the total weight of two poles.

- If the data in statement I alone are sufficient to answer the question

If the data in statement II alone are sufficient answer the question

If the data either in I or II alone are sufficient to answer the question

If the data even in both the statements together are not sufficient to answer the question

Q26.
Suresh gets two successive discounts on purchasing a tape recorder. Find out the second discount.
(A) Selling Price and Marked Price of the tape recorder are Rs 300 and Rs 400 respectively.
(B) The first discount is 20% less than the second discount percentage.

if statement (A) alone is sufficient to solve the question, but statement (B) alone is not.

if statement (B) alone is sufficient to solve the question, but statement (A) alone is not.

if neither statement (A) nor statement (B) is individually sufficient to solve the question, but a combination of both is sufficient to solve the question.

if both the statements(A) and (B) are individually sufficient to solve the question.

if both the statements taken together are not sufficient a

Q27.
In the following question, there is a set of five figures labelled A, B, C, D and E called the Problem set followed by a set of four other figures labelled 1, 2, 3 and 4 called the Answer set. Fig. (C) contains a question mark. Select a suitable figure from the Answer set which will substitute this question-mark so that a series is formed by the figures A, B, C, D and E taken in order. The number of the selected figure is the answer.

Q28.

How many Parallelograms are there in the given figure?

- 14
- 15
- 16
- 18

Q29.
Cavin walked 100m towards east took a right turn and walked 400 m .Then he took a left turn and walked 300m.In which direction is he now from the starting point?

- south west
- south east
- Northeast
- north west

Q30.
Van Buren started to move in the direction of the North. After moving 15 ft, he turned to his right and moved 15 ft. Again he turned to his right and moved 15 ft. Now how far is he from his starting point and in what direction?

- 15 ft, North
- 15 ft, South
- 30 ft, East
- None of these

Q31.
Identify the error in the following sentences

It has been reported by the chairman of the committee that all possible efforts are made to reach the target.

- It has been reported by
- the chairman of the committee that all possible efforts
- are made to
- reach the target
- No error

Q32.

Read each 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 number of that part is the answer. If there is no error, the answer is (E), i.e. 'No error'.

"I have never seen (A)/ such a lovely spectacles (B)/ in my life", said (C)/ the passer-by.(D)/ No Error (E)

- (A)
- (B)
- (C)
- (D)
- (E)

Q33.
The sentence given below, have three parts, indicated by (a), (b) and (c). read each sentence to find out whether there is an error. If a sentence has no error, mark the part (d), which stands for 'No error'. (Ignore the error of punctuation, if any)

(a) No station on this sector of the railway / (b)is as modern and clean/ (c)as this station is/(d) no error

- (a)
- (b)
- (c)
- (d)

Q34.
Fill in the blank with a suitable article from the options given.

We had _____ really good time in Tirupathi.

- a
- an
- the
- no article required

Q35.
Choose the best fit for the blanks from the options given. The "x" means that the blank requires no filling.

_____ extremely versatile student, good _____ studies, sports and oratory, Ram is worthy of emulation _____ all the other students of the class.

An, at, by
A, in, by
An, an, by
The, at, by

Q36.
Choose the best option representing the most logical and coherent sequence of the six sentences labelled (A), (B), (C), (D), (E) and (F) to construct a meaningful paragraph.

A. First, there can be coordination failures in the investment process, which can result in insufficient FDI in certain sectors or inflow of wrong quality of FDI.
B. Efforts are needed to counter two sets of market failures relating to FDI.
C. Hence, in a liberalized environment, market signals and its direction need to be made more explicit so as to direct FDI inflows in the desired direction.
D. In the policy front, given the deficiencies in markets and existing institutions, there is a need for careful design of FDI policies.
E. Second, there can be a conflict of interests of the host country with that of the investor.
F. Ideally, policies should be designed to attract sufficient FDI, extract all the benefits offered and to ensure that they operate within a framework similar to international best-practices.

FDACEB
DCAFEB
BEACDF
DFBAEC

Q37.
Read the following group of sentences. The 1st and the last sentences are numbered 1 and 6, the rest are numbered P,Q,R,S. Arrange these four sentences in proper order to form a meaningful paragraph/sentence.
1. We frisked about cheerfully over a path that led to a guava orchard.
P. There was a mud wall around it.
Q. I smacked my lips at the sight of the luscious green guavas in the orchard.
R. Ajit also followed him without a second's thought.
S. Saransh was the first one to leap over the wall to get the guavas.
6. However I was scared that the watchman will catch us.

RQSP
SQRP
PSQR
PSRQ

Q38.

The question consists of four statements labelled A, B, C and D which when logically ordered form a coherent passage. Choose the option that represents the most logical order.

A. Patrilineal ownership of lands and the culture of dowry attached to it have turned daughters into bad debts.
B. The control of such castes on local politics aggravates masculine hubris.
C. Land makes certain castes ‘kingly’ in rural communities.
D. The bigotry of our village culture and polity is intrinsically linked to control of land and agriculture.

- DBCA
- DABC
- DCBA
- ADBC

Q39.

Replace the underlined portion with the answer choice that results in a sentence that is clear, precise, and meets the requirements of standard written English.

Any attempt to summarize modern music is not only challenging <u>but also misled, as there are an incredible range of styles</u> and expression in today’s music.

- but also misled, there being an incredible range of styles
- but also misled; there are an incredible range of styles
- but also misled, with there being an incredible range of styles
- but also misled, as there are an incredible range of styles
- but also misled, as there is an incredible range of styles

Q40.

Find which part of the statement has an error and select the appropriate option.

Although they typically avoid (A) / people, in Asia, "murder hornet" stings are (B) / thought to cause as many as 50 human (C) / fatalities a year, per annum.(D)

- D
- C
- B
- A

Q41.

Pick out the best alternative for the underlined part of the given sentence.

<u>Most of the players in the team, they supported</u> the retention of their captain.

- The players in the team, most of them supported
- Most of the players in the team provided support for
- Most of the players in the team supported
- Of the players in the team, most supported

Q42.

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

The oldest house in town is being restored by the Historical Society.

- The oldest house in town was being restored by the Historical Society
- The oldest house in town had been restored by the Historical Society.
- The Historical Society is restoring the oldest house in town.
- The oldest house in town has been restored by the Historical Society.

Q43.

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

Let me do this.

- Let us do this.
- This be done by me
- Let this be done by me.
- Let I do this.

Q44.

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

He presented me a bouquet on my birthday.

- A bouquet is presented to me on my birthday by him
- I was presented on my birthday a bouquet by him
- I was presented a bouquet on my birthday by him
- I will be presented a bouquet on my birthday by him

Q45.

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

I did not beat her.

- She is not beaten by me.
- She has not beaten by me.
- She was not beaten by me.
- none of the above

Q46.
Identify the one which is opposite in meaning (antonym) to the question word and mark.

rebuttal

- repartee
- repercussion
- confirmation
- admonition

Q47.
Select the most suitable synonym

knave

- dandy
- gallant
- cheat
- benefactor

Q48.
Select most suitable synonym

uninhibited

- diffident
- unwavering
- candid
- unhampered

Q49.

The question given below is followed by two arguments numbered I and II. You have to decide which of the arguments is a 'strong' argument and which is a 'weak' argument.

Statement : Should telecasting feature films be stopped?

Arguments :
I. Yes. Young children are misguided by the feature films.
II. No. This is the only way to educate the masses.

- if only argument I is strong
- if only argument II is strong
- if neither I nor II is strong
- if both I and II are strong

Q50.
In the question below is given a statement followed by several assumptions. An assumption is something supposed or taken for granted. You have to consider the statement along with the assumptions and then decide as to which of the assumptions is implicit in the statement.

Statement : "It is desirable to keep common medicines with you when you go on a long journey". A advises B.

Assumptions :
I. B's health is poor.
II. A is a medical representative.
III. One's health is likely to get affected by the changes in weather, water etc., while on a long journey.

- Only I and III are implicit
- Only III is implicit
- Only I and II are implicit
- Only I is implicit

Section 2 - Technical MCQ

Section Summary

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

Additional Instructions:

None

Q1.
If you need to double-underline a word, how will you do that?

- Format menu - Font option - Open Underline Style - Select Underline

- Format menu - Font option - Open Underline Style - Choose Double Underline
- Click double underline tool on formatting toolbar
- Select the text - Choose Format - Font option - Open Underline Style - Choose Double Underline

Q2.
The block in an MS Excel spreadsheet where a column and row intersects each other is called _____.

- keyblock
- cell
- square
- box

Q3.
Name the desktop database application that is part of the MS Office suite.

- MS word
- MS Access
- MS PowerPoint
- MS Excel

Q4.
Which of the given combinations of File type and its extension is incorrect?

- .doc for MS Word
- .xls for MS Excel
- .ppt for MS PowerPoint
- .out - MS Outlook

Q5.
What should you do if you require pasting the same format in many places?

- Double click the format painter then go on pasting in many places
- Click the format painter then go on pasting to many places holding Ctrl Key
- Click the Format painter and go on pasting in many places holding Alt Key
- None of the mentioned options

Q6.
Which of the following options is not available in Insert - Picture?

- Chart
- Graph
- Clip Art
- Word Art

Q7.
How to insert a sound file in a Word document?

- Insert - Sound menu
- Insert - Object menu
- Insert - Subject menu
- Insert - File menu

Q8.
You can jump to the next column by which of the following options?

- Press Alt + Down-arrow
- Clicking with your mouse on the next column
- Using both Press Alt + Down-arrow and Clicking with your mouse on the next column
- None of the mentioned options

Q9.
There can be many ways to insert page numbers in a document. Which of the following lets you insert a page number?

- Page number from Insert menu
- Footnote from Insert menu
- Page Setup from file menu
- None of the mentioned options

Q10.
Which type of integrity preserves the defined relationship between tables when records are entered or deleted?

- Domain integrity
- Entity integrity
- User-defined integrity

- Referential integrity

Q11.
Which of the following is not the Networking Device?

- Firewalls
- Linux
- Gateways
- Routers

Q12.
A list of protocols used by a system, one protocol per layer, is called _____.

- protocol system
- protocol suite
- protocol architecture
- protocol stack

Q13.
_____ computing refers to applications and services that run on a distributed network using virtualized resources.

- Distributed
- Cloud
- Soft
- Parallel

Q14.
Which of the following is essential concept related to Cloud?

- Reliability
- Productivity
- Abstraction
- All of the mentioned options

Q15.
_____ has many of the characteristics of what is now being called cloud computing.

- Internet
- Softwares
- Web Service

- All of the mentioned options

Q16.
Pick out the correct statement from the following.

- The use of the word “cloud” makes reference to the two essential concepts
- Cloud computing abstracts systems by pooling and sharing resources
- cloud computing is nothing more than the Internet
- All of the mentioned options

Q17.
Determine the maximum length of the cable (in km) for transmitting data at a rate of 500 Mbps in an Ethernet LAN with frames of size 10,000 bits.
[Assume the signal speed in the cable to be 2,00,000 km/s]

- 1 km
- 2 km
- 5 km
- 6 km

Q18.
A subnet has been assigned a subnet mask of 255.255.255.192. What is the maximum number of hosts that can belong to this subnet?

- 15
- 32
- 62
- 116

Q19.
A host is connected to a Department network which is part of a University network. The University network, in turn, is part of the Internet. The largest network in which the Ethernet address of the host is unique is _____.

- the subnet to which the host belongs
- the Department network
- the University network
- the internet

Q20.
A firewall is installed at the point where the secure internal network and untrusted external network meet which is also known as _____.

- Choke Point
- Meeting Point
- Firewall Point
- Secure Point

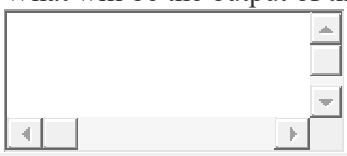
Q21.
In which year ALOHA was developed?

- 1970
- 1980
- 1990
- 1997

Q22.
To prevent its signal from interfering with other cells, the transmission power of each cell is kept _____.

- high
- low
- static
- optimized

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

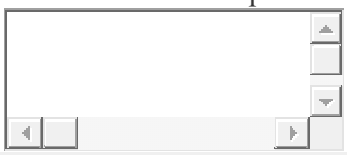


```
1
2
3
Set Integer array=[2,4,0,1]
Set Integer val=array[0]/array[3]
display val
```

- 2
- 3
- 0
- None of the mentioned options

Q24.

What will be the output of the following pseudocode?

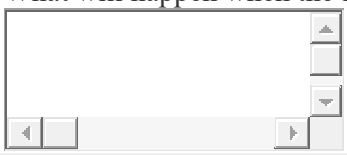


```
1
2
3
4
```

```
Set Integer val=1
Set Integer ans=2
if (val and (ans=val+5))
display “Hello”
```

- Hello
- 0
- Nothing will be displayed
- Throws Compile Time Error

Q25.
What will happen when the following pseudocode is executed?



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

```
Set Integer Emp_no=101
Set Integer salary=0
while(Emp_no=501)
salary=salary+100
display salary
end-while
```

- Code produces an error.
- Code executes successfully and the value of the salary is displayed.
- Code executes successfully and nothing is displayed.
- None of the mentioned options

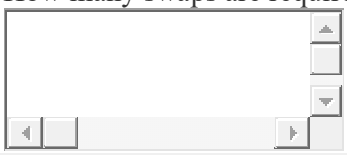
Q26.
What will be the output of the following pseudocode?

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

```
Set Integer m=10
do
m=m*2
display m++
while(m<1)
end do-while
```

- 20
- 10 20
- 11 22
- None of the mentioned options

Q27.
How many swaps are required to sort the given array [7,2,4,1,6] using Bubble sort?



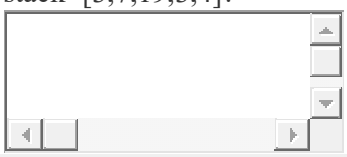
```
1
2
3
4
5
```

```
for all elements of array
if array[i]>array[y+1]
swap(array[i], array[i+1])
end if
end for
```

- 7
- 6
- 5
- 4

Q28.

What will be the output of the following pseudocode when MAXSIZE=4 and stack=[3,7,19,3,4]?

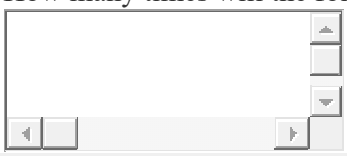


```
1
2
3
4
5
6
```

```
Integer set top = MAXSIZE;
if top equals to MAXSIZE
display TRUE
else
display FALSE
endif
```

- FALSE
- TRUE

Q29.
How many times will the following loop execute?

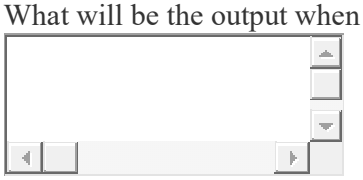


```
1
2
3
4
```

```
Set Character c='d'
While(c>='a' and c<='z') then do
increment c
end-while
```

- 24
- 26
- 25
- 23

Q30.
What will be the output when num=3 and values are passed in order 2,1,6?

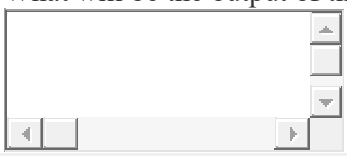


```
1
2
3
4
5
6
7
8
```

```
Set Integer res=0
Input num
for c = 1 to num step 1 do
Input value
res = value
res++
end-for
display res
```

- 7
- 12
- 9
- 5

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



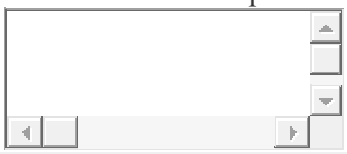
```
1
2
3
4
5
6
7
8
9
10
11
```

```
Set Integer m
Set Character g
set Character status
switch(m)
case 23: status='p'
break
case 21: status='f'
break
default: status='q'
```

```
break
end-switch
```

- q
- p
- f
- None of the mentioned options

Q32.
What will be the output of the following pseudocode?



```
Set Integer array= [2, 4, 7, 8, 14, 21 28]
Set Integer Val= array[4]/14
display Val
```

1
2
3

- 1
- 0
- 2
- 3

Q33.
What will be the output of the following pseudocode?

```
Set integer m=2
switch(m)
case 1: display “Pseudocode”
        break
case 2:
case 3: display “Test”
end-switch
```

1
2
3
4
5
6
7

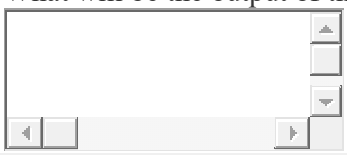
Pseudocode Test

Error

Test

Pseudocode

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



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

```
FUNCTION CalculateSimpleInterest(Integer P,Integer N,Integer R)
Integer SI
SET SI = (P*N*R)/100
print 'Simple interest is: ',SI
END FUNCTION
PROGRAM START
CALL CalculateSimpleInterest(1000,2,5)
STOP
```

Simple Interest is: 100

Simple Interest is: 500

Simple Interest is: 1000

Simple Interest is: 50

Q35.
What will be the output of the following pseudocode when p=7 and q=13?

```
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 ()
```

29

21

23

25

Q36.

What will be the output of the following pseudocode?

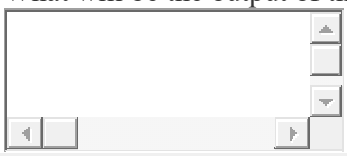
```
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
```

```
Integer pp, qq, rr
set pp= 1, qq= 1, rr= 1
if (qq)
   if (pp)
      pp=2
   else
      qq=1
   end if
   pp = pp + 1
   if (pp + 1 > 0 )
      pp = pp - 1
```

```
    else
        rr = 1 + rr
    end if
end if
print pp + qq + rr
```

- 4
- 14
- 7
- 3

Q37.
What will be the output of the following pseudocode if a=10 and b=4?



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

```
Integer funn (integer a, integer b)
integer c
set c = a & b
c = c + (c ^ 1) + (c ^ 2) + (c ^ 6)
return a + b + c
end function funn ()
```

- 23
- 15
- 18
- 10

Q38.
What will be the output of the following pseudocode for a= 4 and b=77?

```
1
2
3
4
5
```

```
6
7
8
9
10
```

```
Integer funn(integer a, integer b)
integer c
for (each c from 0 to 3 )
if (b>c + a)
continue
end if
a= a >> 1
end for
return a + b
end function funn ()
```

81

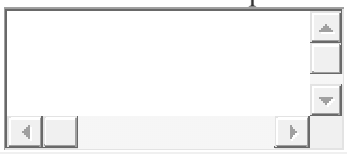
9

8

11

Q39.

What will be the output of the following pseudocode if p=7 and q=4?



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

```
Integer funn(integer p, integer q)
if(p>0)
return p + q + funn(p -3, q) + funn(p-8, q -2)
end if
return q-2
end function funn ()
```

26

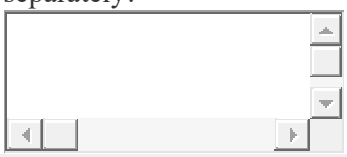
10

-8

9

Q40.

What will be the outputs of the following pseudocode if a=25 and a=16 are executed separately?



```
integer a
if((a mod 10) IS EQUAL TO 0)
   a=a*2
else if((a mod 5 ) IS EQUAL TO 0)
   a=a/5
else
   a=a-1
end if
print a
```

- a=5 and a=15
- a=15 and a=20
- a=25 and a=15
- a=35 and a=25

Section 3 - Coding

Section Summary

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

Additional Instructions:

None

Q1.

Problem Statement

Preethi was fond of programming. One day she attended a hackathon where she came across a question. She was given to solve a question using functions, but as she is not much aware of the usage of functions she was unable to solve it. help her write the program. The question is as follows: Write a function that accepts 3 positive integers l, u, and x as its arguments. You are required to calculate the number of occurrences of a digit x in the digits of numbers lying in the range between l and u both inclusive and return the same.

Example

Input:
2
13
3

Output:
2

Explanation:
The number of occurrences of digit 3 in the digits of numbers lying in the range [2, 13], both inclusive, is 2, i.e., (3, 13), hence 2 is returned.

Input Format
The input consists of the three integers l, u, and x in separate lines

Output Format
The output displays the number of occurrences of a digit x in the digits of numbers lying in the range between l and u.

Constraints
I < u
0 < x < 9

Sample Input Sample Output

```
2
13
3
2
```

Sample Input Sample Output

```
1
100
9
20
```

Time Limit: - ms Memory Limit: - kb Code Size: - kb
Q2.

Problem Statement

Excel columns are labeled in alphabetical order. i.e. – A, B, C,…AA, BB, CC,…BA, BB, BC,…AAA, AAB, AAC,….AAZ and so on. The column index is 1 based i.e. A is represented by 1, B is represented by 2, AA is represented as 27, AB by 28, and so on.

You are required to write a function that accepts an integer n as its argument and returns a string representing the corresponding column label n.

Note: Ensure that the returned string is in the upper case.

Example

Input:
956

Output:
AJT
Input Format
The input consists of an integer, n.
Output Format
The output displays the Excel Column Value of the corresponding integer.
Constraints
$1 < n < 10^7$
Sample Input Sample Output

```
956
AJT
```

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

Answer Key & Solution

Section 1 - Cognitive

Q1
8% loss

Solution
5 article sells at Rs.15 with 20%
Therefore,1 article => Rs.3 with 20% profit
C.P. for 1 article =3/1.2=Rs.2.5
C.P. for 8 article =2.5*8=Rs.20
But selling price=Rs.18.4
Therefore,Loss%=1.6/20*100=8%loss
Q2
Rs. 25,300

Solution
85 : 18700 = 115 : x
x =(18700 x 115)/85 = 25300.
Hence, S.P. = Rs. 25,300.
Q3
Rs. 4000

Solution
Total work= 60 units
Efficiency of Bonar = 60/12 = 5 units/day
Efficiency of Stanley = 60/60 = 1 unit/day
Salary Ratio of Bonar and Stanley = 5:1
Stanley's Salary= (1/6)* 24000= Rs. 4000
Q4
6 days

Solution
Adams, Biden, Carter and Dwight will together take 1/8 + 1/24 = 1/6 ⇒ 6 days to complete the work
Q5
5 km

Solution
Here, speed of the man = 9/2 km/hr. Speed of the stream = 3/2km/hr.

∴. Speed of man against the steam = 9/2 - 3/2 = 3km/hr and speed of man with the stream = 9/2 + 3/2 = 6km/hr.
Let, Required distance = x km.

Then, x/3 + (x-2)/6 = 2 hrs 10 min
=>(2x+x-2)/6 =13/6
Solving, we get x = 5 km.
Q6
24 hours

Solution
Time taken by A, B, C to cover the circular path is 12/4, 12/3, 12/(3/2) respectively
Time interval after which they will all meet at starting point = LCM of 3, 4, 8
= 24 hours
Q7
30

Solution
Let his usual speed be x km/hr and his usual time be t hours. His time on this occasion is 3/5x.
The time taken is (t + 12/60) hours.
Since the distance travelled on both occasions is the same, Xt = 3x/5 x (t + 12/60)
Solving for t, we get t = 18 minutes, and the time taken on this occasion = 18 + 12 = 30 minutes.
Q8
None of these

Solution
1984 April contains 30 days.
The no. even days in April = 15
The no. odd days divided by 3 in April = 5
The no. days divided by 5 in April = 5
The total no. of flowers offered = (15 × 2)+(5 × 3)+(5× 2)= 55 flowers.
Q9
3

Solution
We will calculate the new number system base 'b' first, 9 x b + 1 = 73. Therefore, the base is '8'. The number 364065 is in octal system.The decimal equivalent will be $3 \times 8^5 + 6 \times 8^4 + 4 \times 8^3 + 0 \times 8^2 + 6 \times 8^1 + 5 \times 8^0$

Number 8 can be written as 7 + 1 So, Rem (8/7) = 1.Therefore by Remainder theorem, remainder= (3*1 + 6*1 + 4*1 + 0*1 + 6*1 + 5*1) mod 7 = 3.
Q10

147

Solution
The smallest number which when divided by 4, 9, 12 and 16 each leaves the remainder 3, can be found out by the LCM of 4, 9, 12 and 16 which is 144 and adding 3 to it.
Hence 144 + 3 = 147 is the answer
Q11
62784

Solution
Total ways of telephone numbers = 90000.

9*10*10*10*10 (digits from 0 to 9)

Total arrangements of telephone numbers in which no digit is repeated = 9 × 9 × 8 × 7 × 6.

So the telephone numbers having at least one digit repeated

Total ways – ways in which. no digit is repeated. = 90000 – 9 × 9 × 8 × 7 × 6 = 62784.
Q12
1440

Solution
There are 5 consonants and 2 vowels in the word STRANGE
Out of 7 places for the 7 letters, 4 places are odd and 3 places are even.
2 vowels can be arranged in 4 odd places in 4P2 ways.
Then 5 consonants can be arranged in the remaining 5 places in 5P5 ways.
Total number of ways = 120 * 12 = 1440.
Q13
1/5

Solution
P(A) = 1/10
P(B) = 1/8
P(A')=1-1/10 = 9/10
P(B')=1-1/8 = 7/8

REQUIRED
PROBABILITY=P(A).P(B')+P(B).P(A')=1/10*7/8+1/8*9/10=7/80+9/80=16/80=1/5
Q14
105

Solution
Let x be the no. of good guavas,

Probability = (No. of good guavas) / (Total no. of guavas)

0.2 = x / 525

$x = 525 \times 0.2 = 105$
Q15
11/21

Solution
$n(S) = 7C_2 = (7\times6)/(1\times2) = 21$
$n(E) = 2C_2+5C_1 * 2C_1 = 1+10= 11$
$P = n(E)/n(S) = 11/21$
Q16
STE

Solution
ADP= 1 4 16
QTX= 17 20 24
HKR= 8 11 18
STE= 19 20 5
Difference is 3 between first 2 alphabets which is not followed in STE
Q17
W

Solution
A(1) + 5 = F(6)
R(18) + 5 = W(23)
Q18
OET

Solution
CYD, FTH, IOL, LJP
First letter: C + 3 = F, F + 3 = I, I + 3 = L
Therefore, L + 3 = O
Second Letter: Y - 5 = T, T - 5 = O, O - 5 = J
Therefore, J - 5 = E
Third Letter: D + 4 = H, H + 4 = L, L + 4 = P
Therefore, P + 4 = T
The next set is OET.

Q19
R

Solution
S U P E R C I L I O U S
U S E P C R L I O I S U - after rearrangement
7^{th} letter from the right is R.
Q20
Grand Father

Solution
Prabhat and Preeti are in the generations of ‘grand’.
Hence the relation would be Grand Father.
Q21
P + M x N % Q

Solution
P + M → P is the brother of M
M x N → M is the mother of N
N % Q → N is the sister of Q
Therefore, P is the maternal uncle of Q.
Q22
Sunday

Solution
The seventh day of the month is three days earlier than Friday, which is Tuesday.
So, the fourteenth day is also Tuesday and thus, the nineteenth day is Sunday.
Q23
4:30 pm

Solution
The time shown by the clock is 4 hours 17 minutes 30 seconds (or) 4:17.5 hours.
Counting the number of minutes in between 4:30 a.m. on Monday to 4:17.5 p.m. on Wednesday.
We have 3587.5 minutes. Also, it is given that the clock loses 5 minutes in a day.
=> for every 1440 minutes the clock loses 5 minutes or it covers 1435 minutes.
For 1435 minutes 1440 is the original time
for 3587.5 minutes ((1440×3587.5)/1435) = 3600.
3600 minutes equals to 60 hours.
∴ 60 hours after 4:30 a.m. on Monday is 4:30 p.m. on Wednesday.

Q24
If the data in statement I alone are sufficient to answer the question

Solution
From I F is tallest.
From II F or D is tallest.
So, the data in statement I alone are sufficient to answer the question
Q25
If the data either in I or II alone are sufficient to answer the question

Solution
From I, we find that the weight of one pole is (5 x 4) = 20 kg ,and so the weight of 10 poles is 200 kg.
Thus, I alone is sufficient.

From II. we have : (weight of 3 poles — weight of 2 poles) -= 20 kg or weight of one pole - 20 kg.
So weight of 10 poles 200 kg.
Thus. II alone is also sufficient
Q26
if neither statement (A) nor statement (B) is individually sufficient to solve the question, but a combination of both is sufficient to solve the question.

Solution

From Statement (A), we get the Selling Price and Marked Price which are not sufficient. ;

From Statement (B): Let the second discount per cent = x, then the first discount per cent =80% of x = 0.8x. This alone is not sufficient.

Combinig both, we get: 400 = 300 ((100-0.8x)/100) ((100-x)/100)

Clearly, x can be found out
Q27

Solution
One extra octant (one- eighth part) of the circle is shaded Anti Clock Wise(ACW) in each step. The figure rotates 45° ACW and 90° ACW alternately.
Q28
16

Solution

The simplest parallelogram are ABFE, BCGF, CDHG EFJI, FGKJ and GHLK. These are 6 in number.
The parallelograms composed of two components each, are ACGE, BDHF, EGKI, FHLJ, ABJI, BCKJ and
CDLK. Thus, there are 7 such parallelograms. The parallelogram is composed of four components each are ACKI and BDLJ i.e. 2 in number. There is only one parallelogram composed of six components, namely, ADLI. Thus, there are 6 + 7 + 2 + 1 = 16 parallelograms in the figure.

Q29
south east

Solution

Q30
None of these

Solution
He is 15 ft from starting point and he is east of the starting point.
Q31
are made to

Solution
Use ‘will be’ in place of ‘are’.
Q32
(B)

Solution
Substitute spectacle for spectacles (here spectacle means scenes which singular uncountable noun. e.g. what a beautiful spectacle! = what a beautiful sight)
Q33
(a)

Solution
sector of railway should be replaced by wing or part of railways
Q34
a

Solution
Here, for the given blank 'a' suits the best.

Since, we talk about a brief period of time (really good time), we select 'a' as the answer.
Q35
An, at, by

Solution
Answer: Option aEmulation – Ambition to equal or excel through imitationE.g. sentence: Sachin Tendulkar’s career was so great that it is worthy of emulation by every budding cricketer.**First blank –**Option b can be eliminated because of the vowel sound with which the pronunciation of ‘extremely’ starts.Option d can be eliminated because ‘extremely versatile student’ refers to ‘Ram’, a single person. This cannot be definite.**Second blank:** ‘ An’ can definitely not come before ‘studies’, for the latter’s pronunciation does not start with a vowel sound. Moreover, the word needed in the blank is a preposition. That correct preposition is ‘at’
Q36
DFBAEC

Solution
Ans. . There is need to design proper FDI policies to avoid the problems that are being encountered. The code words for determining the required order are: First, second and hence as given in statements A, E and C. So DFBAEC is the correct order.
Q37
PSRQ

Solution
The first statement must be P as it describes the orchard. S must follow P as Saransh was the first person. R must follow S as the verb ‘followed’ is mentioned here. Q must be the fourth statement as it completes the sequence. Thus PSRQ is the correct answer.

Q38
DCBA

Solution
Sentence D talks of the intolerance that marks the village culture and polity. We see that this is the main idea of the paragraph.
Sentence C talks of some castes being considered “kingly" in rural communities. Sentence B talks of the control of “these castes" on local politics and how it aggravates masculine pride. So, C comes after D. Both of these sentences substantiate the idea of bigotry that is made by sentence D.
Sentence A talks of the patrilineal system of passing ownership of lands and system of linking dowry to land ownership turning daughters to be regarded as “bad debts". This sentence substantiates the point made by sentence C.
The correct order is DCBA.
Hence, the answer is DCBA.
Q39
but also misled, as there is an incredible range of styles

Solution
The subject is "range of styles," which is singular. Therefore, the verb should refer to a singular subject. The correct answer choice does this and also makes the most efficient use of language.
Q40
D

Solution
The error is in Part D of the sentence. The usage of the phrase 'a year' as well as 'per annum' causes a redundancy error.
Q41
Most of the players in the team supported

Solution
The use of the word 'they' is redundant in the sentence and has to be removed.
So, the answer is "Most of the players in the team supported".
Q42
The Historical Society is restoring the oldest house in town.

Solution
Solution:
The given sentence is in passive voice.
When changed to active voice, is being restored becomes is restoring

The right answer is "The Historical Society is restoring the oldest house in town ."
Q43
Let this be done by me.

Solution
Solution:
The given sentence is in active voice. If a sentence is started with "Let" , the passive voice of that sentence also be started with Let.
Rule :
Let +Subject +be + V3 + Other agents.
The right answer is "Let this be done by me"
Q44
I was presented a bouquet on my birthday by him

Solution
Solution:
The given sentence is in simple past tense and active voice.
When the voice is changed, He(him) becomes object, me(I) becomes subject
Presented becomes was presented
The answer is "I was presented a bouquet on my birthday by him"
Q45
She was not beaten by me.

Solution
Solution:
The given sentence is in simple past and is in active voice
When the voice is changed, did not becomes was not
her becomes she and as subject
I becomes me
The right answer is "She was not beaten by me."
Q46
confirmation

Solution
'Rebuttal' means to stay or prove that a statement or criticism is false. ‘Repartee’ means cleverness in reply. ‘Repercussion’ a movement back from an impact. ‘Admonition’ means cautionary advice about something dangerous. The appropriate antonym for it is 'confirmation'.
Q47
cheat

Solution
The word knave is a negative word which means rogue or rascal. Dandy refers to great, gallant refers to brave and benefactor refers to sponsor. So the best answer is cheat which is a negative word means trick or deceive.
Q48
candid

Solution
The word uninhibited means open or unreserved. Diffident refers to insecure, unwavering refers to steady and unhampered refers to free. So the best answer is candid which means open or frank. Ans.(3)
Q49
if neither I nor II is strong

Solution
The argument I not valid because films also educate masses and other benefits . Similarly, argument II against the statement is weak because it is not the only way to educate the masses, there are other ways as well. Hence the answer is neither I and II
Q50
Only III is implicit

Solution
Assumption (I) is not implicit as the health of B is not discussed in the statement.
Assumption (II) is not implicit as the statement talks nothing about A's profession.
Assumption (III) is implicit as the statement is a suggestion and it is only given because long journey makes oneself uneasy.

Section 2 - Technical MCQ

Q1
Select the text - Choose Format - Font option - Open Underline Style - Choose Double Underline

Solution

No Solution
Q2
cell

Solution

No Solution
Q3
MS Access

Solution

No Solution
Q4
.out - MS Outlook

Solution

No Solution
Q5
Double click the format painter then go on pasting in many places

Solution

No Solution
Q6
Graph

Solution

No Solution
Q7
Insert - Object menu

Solution

No Solution
Q8
Using both Press Alt + Down-arrow and Clicking with your mouse on the next column

Solution

No Solution
Q9
Page number from Insert menu

Solution

No Solution
Q10
Referential integrity

Solution
Referential integrity is a relational database concept, which states that table relationships must always be consistent. Referential integrity means that the foreign key in any referencing table must always refer to a valid row in the referenced table. Referential integrity ensures that the relationship between two tables remains synchronized during updates and deletes
Q11
Linux

Solution

No Solution
Q12
protocol stack

Solution
A protocol stack refers to a group of protocols that are running concurrently that are employed for the implementation of network protocol suite. Each layer in the network model has to use one specific protocol from the protocol stack
Q13
Cloud

Solution
Explanation:
Cloud Computing applications are accessed by common Internet protocols and networking standards.

Q14
Abstraction

Solution
Explanation:
Cloud computing abstracts the details of system implementation from users and developers

Q15
Internet

Solution

No Solution
Q16
Cloud computing abstracts systems by pooling and sharing resources

Solution

No Solution
Q17
2 km

Solution
Data should be transmitted at the rate of 500 Mbps.
Transmission Time >= 2*Propagation Time
=> 10000/(500*1000000) <= 2*length/200000
=> lenght = 2km (max)

Q18

62

Solution

No Solution
Q19
the internet

Solution

No Solution
Q20
Choke Point

Solution

No Solution
Q21
1970

Solution
ALOHA, a computer networking protocol, was developed in the year 1970. It was created by Norman Abramson at the University of Hawaii as a pioneering system for wireless data communication. ALOHA played a significant role in the development of modern networking technologies.
Q22
low

Solution

No Solution
Q23
2

Solution

No Solution
Q24
Hello

Solution

No Solution
Q25

Code executes successfully and the value of the salary is displayed.

Solution

No Solution
Q26
20

Solution

No Solution
Q27
6

Solution

No Solution
Q28
FALSE

Solution

No Solution
Q29
24

Solution

No Solution
Q30
7

Solution

No Solution
Q31
q

Solution

No Solution
Q32
1

Solution

No Solution
Q33
Test

Solution

No Solution
Q34
Simple Interest is: 100

Solution

No Solution
Q35
29

Solution

No Solution
Q36
4

Solution

No Solution
Q37
23

Solution

No Solution
Q38
81

Solution

No Solution
Q39
26

Solution

No Solution
Q40
a=5 and a=15

Solution

No Solution

Section 3 - Coding

Q1**Test CaseInputOutput**

```
1
30
2
13
```

Weightage - 15InputOutput

```
3
10
7
1
```

Weightage - 25InputOutput

```
10
40
5
3
```

Weightage - 30InputOutput

```
30
60
8
3
```

Weightage - 30Sample InputSample Output

```
2
13
3
2
```

Sample InputSample Output

```
1
```

```
100
9
20
```

Solution

```
#include<stdio.h>

int countDigitOccurrences(int l, int u, int x)
{
    int rem, count = 0;
    for(int i = l; i <= u; i++)
    {
        int temp = i;
        while(temp != 0 )
        {
            if(temp % 10 == x)
                count++;
            temp = temp / 10;
        }
    }
    return count;
}
int main()
{
   int l, u, x;
   scanf("%d %d %d", &l, &u, &x);
   printf("%d", countDigitOccurrences(l, u, x));
   return 0;
}
#include<iostream>
using namespace std;

int countDigitOccurrences(int l, int u, int x)
{
    int rem, count = 0;
    for(int i = l; i <= u; i++)
    {
        int temp = i;
        while(temp != 0 )
        {
            if(temp % 10 == x)
                count++;
            temp = temp / 10;
        }
    }
    return count;
}
int main()
{
   int l, u, x;
   cin >> l >> u >> x;
   cout << countDigitOccurrences(l, u, x);
   return 0;
}
import java.util.*;
class Main
{
```

```
    static int countDigitOccurrences(int l, int u, int x)
    {
        int rem, count = 0;
        for(int i = l; i <= u; i++)
        {
            int temp = i;
            while(temp != 0 )
            {
                if(temp % 10 == x)
                    count++;
                temp = temp / 10;
            }
        }
        return count;
    }

    public static void main(String args[])
    {
        Scanner sc = new Scanner(System.in);
        int l = sc.nextInt();
        int u = sc.nextInt();
        int x = sc.nextInt();
        System.out.print(countDigitOccurrences(l, u, x));
    }
}
```

Q2Test CaseInputOutput

```
250
IP
```

Weightage - 10InputOutput

```
555
UI
```

Weightage - 20InputOutput

```
1111
APS
```

Weightage - 20InputOutput

```
4525
FRA
```

Weightage - 20InputOutput

```
9999999
UVXWI
```

Weightage - 30Sample InputSample Output

```
956
AJT
```

Solution

```
#include<stdio.h>
void convert(int n , int base)
{
    if(n<=base)
    {
        printf("%c",char(n+64)) ;
        return ;
    }
    convert(n/26 , 26) ;
    printf("%c",char(n%26 + 64)) ;
}
int main()
{
    int n ;
    scanf("%d",&n);
    convert(n , 26) ;
    return 0 ;
}
#include<bits/stdc++.h>
using namespace std ;

void convert(int n , int base)
{
    if(n<=base)
    {
        cout << char(n+64) ;
        return ;
    }
    convert(n/26 , 26) ;
    cout << char(n%26 + 64) ;
}

int main()
{
    int n ;
    cin >> n ;

    convert(n , 26) ;

    return 0 ;
}
import java.util.*;
class Main
{
    public static void convert(int n , int base)
    {
        if(n<=base)
        {
            System.out.printf("%c",(char)(n+64)) ;
            return ;
        }
        convert(n/26 , 26) ;
        System.out.printf("%c",(char)(n%26 + 64)) ;
    }
             public static void main(String[] args)
             {
```

```
                      Scanner sc=new Scanner(System.in);
        int n=sc.nextInt();
        convert(n , 26) ;
             }
}
def convert(n , base):
    if(n<=base):
        print((chr)(n+64),end="")
        return
    convert(n//26 , 26)
    print((chr)(n%26 + 64),end="")
n=int(input())
convert(n , 26)
```