

Q1. Fill in the blanks with the most suitable option.

He is _____ to malaria. Mosquito bites have no effect on him.

Ops: A) Strong

B) resistance

C) Weak

D) immune

Q2. The sentences given below from a coherent passage when arranged logically. Choose the option which gives the correct sequence.

- i) Dayani, thirty-three, has sold fruit and drinks from a wooden table by a bus stop for about eleven years.
- ii) This was in the countryside, before she moved to Managua when she was nine and began selling fruit from a basket on her head, walking miles through the city every day.
- iii) Before that, she worked as an ambulatory vendor, beginning at age six, when her mother sent her out to sell tortillas and cornbread door to door after school to help the family make a living.

Ops: A) ii, i, iii

B) iii, ii, i

C) i, ii, iii

Q3. Fill in the blanks with the most suitable option.

Ms. Smith lives _____ an apartment building in Paris.

Ops: A) none of the mentioned options

B) in

C) on

D) at

Q4. Mark the option which is closest to the meaning of the underlined word or phrase.

The plane lay burnt in fragments.

Ops: A) entirety

B) pans

C) whole

D) scraps

Q5. Fill in the blanks with the most suitable option.

She went _____ with the flu last week.

Ops: A) Off

B) down

C) up

D) through

Q6. Which part of the sentence give below has an error in it?

I don't think many / people can say they / are satisfied with they're salary

Ops: A) No Error

B) are satisfied with they're salary

C) people can say they

D) I don't think many

Q7. Fill in the blanks with the most suitable option.

George Washington _____ the first president of the United States.

Ops: A) Were

B) Will

C) Was

D) Won't

Q8. The segments given below from a coherent sentence when arranged logically. Choose the option which gives the correct sequence.

- i) We do music
- ii) We regard it as in Arabian Night's bouquet
- iii) and offered for the passing delectation of the sense
- iv) a grave injustice when
- v) spread by the hands of unaccountable magic

Ops: A) i, ii, iii, iv, v

B) i, iv, ii, v, iii

C) ii, i, iii, iv, v

D) iv, ii, i, v, iii

Q9. Find out which part of the sentence below has an error and mark the option accordingly.

Our Laxity in duty / increases / with our / aversion for work

Ops: A) our laxity in duty

B) with our

C) aversion for work

D) increases

Q 10. From the options given, choose the answer which is most closely associated in terms of prelude / inference to the sentence given below.

Before we learn how to truly love someone else, we must learn how to love the face in the mirror.

Ops: A) Don't be shy about meeting members of opposite sex.

B) Learning to accept ourselves for what we are will teach us how to accept another person.

C) Love is not something that lasts unless one is very lucky

D) No one can really love you the way you can love yourself

Read the passage given below and answer the questions that follow.

Scientists on Thursday announced the discovery in Catalonia of fossil remains of a small, fruit-eating female ape that lived in a warm, wet forested region teeming with animals including elephant relatives, rhinos and saber-toothed predators. They gave the ape, weighing 9-11 pounds (4-5 kg), the scientific name *Pliobates cataloniae* and the nickname "Laia."

"There is no living primate like *Pliobates*, which exhibits a unique combination of modern ape-like features with other, more primitive ones," said paleobiologist David Alba of the Catalan Institute of Paleontology near Barcelona. "We can imagine a small ape, like the smallest living gibbons, with a gibbon-like appearance regarding the cranium but with different body proportions: less elongated arms and hands."

Alba said *Pliobates*, which lived during the Miocene epoch, moved through the forest canopy differently than today's gibbons, using slow and cautious climbing, like a loris, a more primitive primate, while sometimes hanging below branches.

The remains include 70 bones or bone fragments including a skull exceptionally complete for a primate from that time. Its teeth look primitive compared to today's apes including both the small-bodied "lesser apes" like gibbons and siamangs and the larger-bodied "great apes" like orangutans, gorillas, and chimpanzees. Its skull exhibits features including overall shape similar to today's apes, although it more closely resembles gibbons than great apes. Its elbow and wrist are similar to today's apes. But the external bony ear is more primitive than in living apes and monkeys. "*Pliobates* suggests that small-bodied apes played a much more important role in the origin of extant apes than previously recognized and that their last common ancestor, in several respects, skull shape and body size, might have been more gibbon-like than previously thought," Alba said.

Gibbons are small, arboreal apes from rainforests in parts of Asia. Alba said the evolutionary divergence of gibbons and great apes occurred between 20 and 15 million years ago, meaning *Pliobates* because of its age cannot be the last common ancestor of today's apes and the human lineage. But *Pliobates* may have descended from an ape that lived just before this evolutionary split. "As a result, *Pliobates* gives us insight as to how this common ancestor would have been," Alba said.

[Source: Reuters.com]

Q11. A Comprehended from the passage, a paleobiologist studies:

Ops: A) apes and their origin

B) fossil life forms with reference to their origin and structure

C) various changes in the bone structure of animals

D) the evolutionary changes in animals

Q12. Which one of the following features does not differ *Pliobates* from Gibbons as suggested by David Alba in the passage?

Ops: A) Primitive teeth

B) More primitive external bony ear

C) Less elongated arms and hands

D) None of the mentioned options

Q13. What is the meaning of arboreal as used in the passage?

Ops: A) Primitive Living being

B) Gibbon like

- C) Herbivorous
- D) Living in trees

Q 14. Choose the word Closest to the meaning of the word given below:

CRUDE

Ops: A) Kind

B) Pure

C) Raw

D) Delicate

Q15. Choose the option which is closest to the opposite in meaning of the given word or phrase.

RAPACIOUS

Ops: A) Furious

B) Appeased

C) Savage

D) Greedy

Q16. Which part of the sentence given below has an error in it?

According to the survey / more of forty percent / of the population do not / have access to banks.

Ops: A) of the population do not

B) According to the survey

C) more of forty percent

D) have access to banks

Q17. Fill in the blanks with the most suitable option.

In government jobs, there _____ a much higher level of job security in comparison _____ corporate jobs.

Ops: A) is, to

B) will be, of

C) is, that to

D) was, that of

Critical Reasoning and Problem Solving

18 Questions, 1 mark each

Read the following information carefully and answer the questions that are given below it.

Kavi is son of Mukesh. But Mukesh is not the mother of Kavi. Tamanna and Mukesh are married couple. Ansh is brother of Mukesh. Divya is daughter of Tamanna. Ganesh

Q18. How many male members are there in the family?

Ops: A) Three

B) Two

C) Four

D) One

Q19. Who is the mother of Kavi?

Ops: A) Mukesh

B) Cannot be determined

C) Divya

D) Tamanna

Q20. How many children does Tamanna have?

Ops: A) Four

B) One

C) Three

D) Two

Q21. Who is the wife of Ansh?

Ops: A) Cannot be determined

B) Divya

C) Tamanna

D) Mukesh

Q22. The statements given below are followed by some conclusions. Assume the statements are true, even if they contradict commonly known facts, and determine the conclusion/s that follow/s from the statements logically.

Statements:

- i. All roads are Poles
- ii. No Pole is a house.

Conclusions:

- i. Some roads are houses
- ii. Some houses are poles

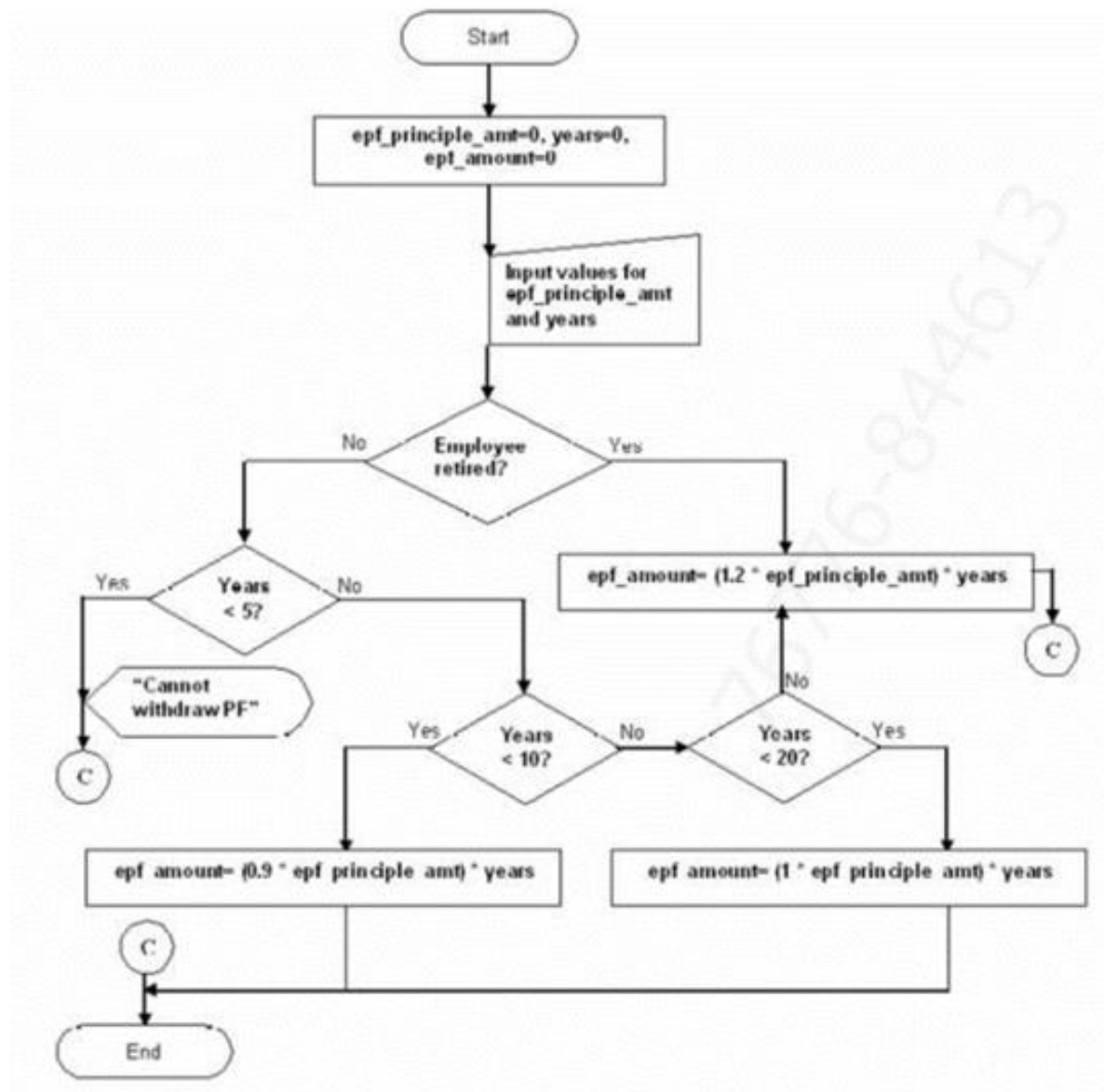
Ops: A) Neither Conclusion I nor Conclusion II follows

B) Both Conclusion I & Conclusion II follow

C) Only Conclusion II follows

D) Only Conclusion I follows

Study the flow chart below and answer the questions that follow.



Q24. If an employee quits the organization after 4.5 years of service, what is the “epf amount” he would get if the principal amount is \$12,500?

Ops: A) \$ 25,000

B) \$ 50,000

C) \$ 50,625

D) He cannot withdraw his PF

Q25. If an employee quits the organization after 9.5 years of service, what is the “epf amount” he would get if the principal amount is \$27,500?

Ops: A) \$220,500

B) \$235, 125

C) \$230, 550

D) \$ 235, 250

Q26. If an employee retires after 20.5 years of service, what would his “epf amount” be if the principle amount accumulated in his account is \$52,000?

Ops: A) \$152,000

B) \$679,000

C) \$1,279,000

D) \$ 127,900

Q27. The question given below is followed by two statements numbered I and II. Determine if the statements are, individually or together sufficient to answer the question.

Question: What is the average daily wage of a plumber for five days, if he made \$80 on the first day?

Statements:

I. The plumber made a total of \$400 during the first four days

II. The plumber made \$20 more each day than he did on the previous day

Ops: A) only one of the statements, alone, is sufficient to answer the question but the other statement is not

B) Statements I & II together are not sufficient to answer the question asked and additional data to the problem is needed

C) Each statement alone is sufficient to answer the question

D) Both statements I and II together are sufficient to answer the question asked but neither statement alone is sufficient.

Q28. If an employee retires after 20.5 years of service, what would his “epf amount” be if the principle amount accumulated in his account is \$52,000?

Ops: A) \$152,000

B) \$679,000

C) \$1,279,000

D) \$ 127,900

Read the following information carefully and answer the questions that follow.

6 friends Paul, Sam, Charles, Edward, Adam and David are studying in 6 different institutes Charaka institute, Cheer institute, Hamilton institute, Bardly institute, Vasan institute and Fulton institute. They are living in different rooms in a hostel between room numbers 101 to 106. The following information is also known.

- Persons staying in even numbered rooms are studying in Cheer institute, Fulton institute and Vasan institute.
- Edward is studying in Bardly and stays in room number which comes next to Fulton institute student's.
- Persons whose names start with vowels are studying neither in Hamilton institute nor Fulton institute.
- David is studying at Fulton institute and Paul, who stays in room number 106, is studying in Vasan institute.
- Charles is studying in the institute that starts with letter 'C' and stays in an even numbered room.
- The difference between the room numbers of Paul and Adam is maximum.
- The room number of Edward is one less than the room number of Charles.

Q28. Who is staying in the room with number 104?

Ops: A) Sam

B) Adam

C) Charles

D) Edwards

Q29. Who is staying in the room with number 101?

Ops: A) Sam

B) David

C) Adam

D) Edward

Q30. What is the room number of Sam?

Ops: A) 103

B) 104

C) 105

D) 102

Q31. Who is staying in the room number 103?

Ops: A) Sam

B) Edward

C) Adam

D) Charles

Q32. Which among the following sentences best develops or supports the argument given below?

Argument: The government has decided to reduce the customs duty on computer peripherals

Ops: A) The domestic market price of Computer peripherals may go up in the near future.

B) None of the mentioned Options

C) The sale of Computer peripherals is to be increased

D) The domestic manufacturers may oppose the decision of the government.

Q33. Mark the option containing the sentence that weakens the argument given below.

Argument: The management of KLM Pvt. LTD asked the sales union to call of the strike immediately otherwise the management would be forced to close down the company.

Ops: A) Management of a company can run the company with new sales executive during the strike.

B) Management of KLM Pvt. Ltd. Can't run the company without sales executives

C) Management should close the company during strikes

D) Management of the company is warning the sales executives to stop the strike.

Q34. The symbols +, -, *, and \$ are used with the following meaning illustrated.

'P * Q' means 'P is not greater than Q'

'P - Q' means 'P is neither greater than nor equal to Q'

'P \$ Q' means 'P is not smaller than Q'

'P + Q' means 'P is neither smaller than nor equal to Q'

'P / Q' means 'P is neither smaller than nor greater than Q'

Now assuming the given statements are true, identify the conclusion/s that is/are definitely true

Statements:

- i. $W \leq K$
- ii. $K + R$
- iii. R/N

Conclusions:

- i. $N - K$
- ii. $R - W$
- iii. $W + N$

Ops: A) Only Conclusion I follows

B) Only either Conclusion II or Conclusion III follow

C) Only either Conclusion I or Conclusion II follow

D) All follow

Q35. The statements given below are followed by some conclusions. Assume the statements are true, even if they contradict commonly known facts, and determine the conclusion/s that follow/s from the statement logically.

Statements:

- I. Some Summers are winters
- II. Some winters are monsoons
- III. Some monsoons are springs
- IV. Some springs are seasons

Conclusions:

- I. Some Summers are seasons
- II. No Summer is a season

Ops: A) Both Conclusion I and conclusion II follow

B) Only Conclusion II follows

C) Neither Conclusion I nor Conclusion II follows

D) Only Conclusion I follows

Abstract Reasoning

15 questions, 1 mark each

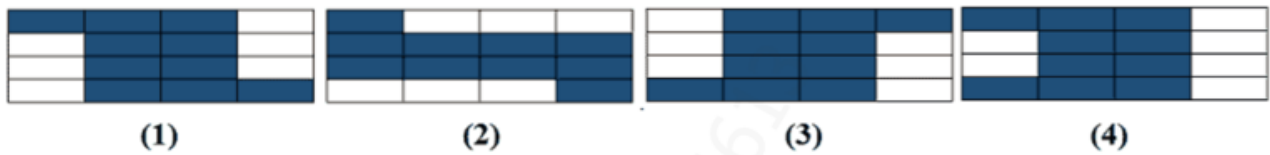
Q36. If in a certain code language “MRV” is coded as “GLP”, then how would “GLP” be coded in the same code language?

- Ops:** **A)** AEJ
B) AFI
C) AFJ
D) AEI

Q37. If in a certain code language “COFFEE” is coded as “DPGGFF”, then how would “FIGHT” be coded in the same code language?

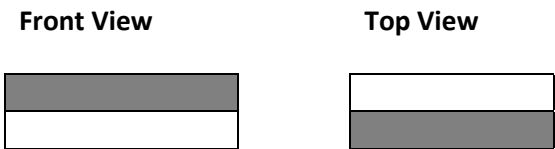
- Ops:** **A)** GHJUI
B) GHJIU
C) GJHIU
D) GJHUI

Q 38. Which one of the following images is most unlike the others?



- Ops:** **A.** ○ (4)
B. ○ (2)
C. ○ (1)
D. ○ (3)

Q39. Below given figures are the Front and TOP views of a Cube. Choose among the **Answer figures** that shows the **Back view** of the cube?



- Ops:** **A)** (a)
B) (b)
C) (c)
D) cannot be determined






Q40. The problem figure given below has the properties of a Latin Square. A Latin square bears the following two properties:

1. A row or a column never contains the same item twice
2. Every row and column contain the same items

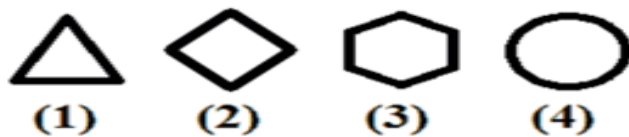
From the items given in the Response Figures, choose the one that should come in place of “?” in the problem Figure.

Problem Figure:

Problem Figure:

			
			
			
			?

Response Figures:



- Ops:**
- A. ○ (4)
 - B. ○ (3)
 - C. ○ (2)
 - D. ○ (1)

Q41. If in a certain code language, “CHOPPER” is coded as “ONQFPQB” , then how would “DISSENT” be coded in the same code language?

Ops: A) XIJNXDJ

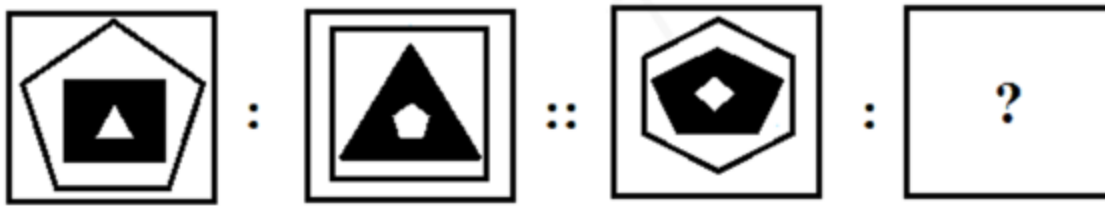
B) XIJNXDI

C) XIJMXDI

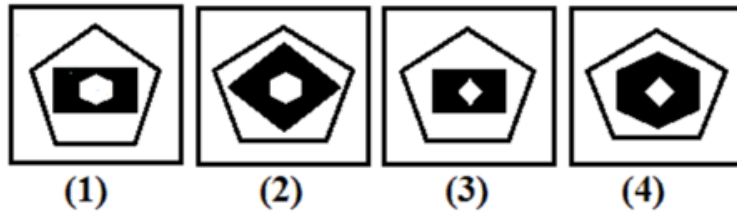
D) XIJMXDJ

Q42. In the following question, choose the answer from the **Response Figure** which when put in place of the question mark would complete the relation given in the first two images of the **problem Figure**?

Problem Figure:



Response Figure:



- Ops: A. ☐ (1)
 B. ☐ (3)
 C. ☐ (2)
 D. ☐ (4)

Ops: A) 1

B) 3

C) 2

D) 4

Q43. Pick the odd one out from the given options.

Ops: A) Pond

B) Stream

C) River

D) Brook

Q44. Find the missing term in the series given below.

1607, 1697, 1809, 1965, 2209

Ops: A) 2629

B) 2781

C) 2435

D) 2507

Q45. Find the missing term in the series given below.

1, 7, 23, 55, 109, 191

Ops: A) 307

B) 299

C) 301

D) 325

Q46. Find the missing term in the series given below.

CDF, EFH, HIK, ? , TOW, EFH

Ops: A) LMO

B) LOP

C) LNP

D) MNO

Q47. Find the missing term in the series given below.

7, 9, 66, 12, 14, 66, 17, ? , ?

Ops: A) 66, 19

B) 19, 22

C) 20, 66

D) 19, 66

Q48. Mark the option that most logically completed the following sequence.

Ops: A)

B) Brain

C) Bones

D) Skin

Q49. Mark the odd one out from the given options.

Ops: A) Violin

B) Harp

C) Trumpet

D) Sitar

Q50. Mark the odd one out from the given options.

Ops: **A)** 31st March, 2009

B) 29th February 2001

C) 30th March 2005

D) 28th February 2010

Q51. Following are the two statements given about archiving in outlook 2016. Analyze the statements and select the Correct option.

Statement 1: Archiving is used only to move your older items to a different data file

Statement 2: Archiving is intended to create copies of your data items for safe storage at disparate locations

Choose the correct answer from the options given below.

Ops: A) Both the statements are correct

B) Only statement 1 is correct

C) Both statements are incorrect

D) Only statement 2 is correct

Q52. When you create a custom-building block, how does MS WORD save it?

Ops: A) Word Saves it in a special file called the Quick blocks template

B) Word Saves it in a special file called the Building blocks template

C) None of the mentioned options

D) Word Saves it in a special file called the Quick Parts template

Q53. If you want triple line spacing, which of the following options will you select and specify 3 as the value?

Ops: A) Multiple

B) Both Double and Multiple

C) Single

D) Double

Q54. In what scenario will you receive the error message shown in the image given below?



Ops: A) None of the mentioned options




B) If you try to copy an Appointment from one calendar to another

C) If you try to edit an Appointment from one calendar to another

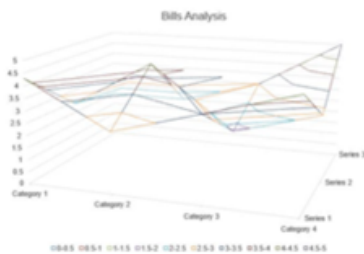
D) If you create a custom folder and attempt to set a reminder for a calendar event in that folder

Q55. You are required to add data from an excel worksheet into your presentation. You have copied the data from an excel worksheet and are pasting it into your presentation?

Which of these paste options would you select to copy the data as PowerPoint table, using the format of the presentation:

- Ops:**
- A. ☐ 
 - B. ☐ 
 - C. ☐ 
 - D. ☐ It is not possible

Q 56. Bills is working for a consulting firm as a data analyst. He is using the given chart for representing his analysis in the PowerPoint presentation. Which of these chart options would represent the given chart for data visualization in PowerPoint?



- Ops:**
- A. ☐ Radar
 - B. ☐ Surface
 - C. ☐ Stock
 - D. ☐ Scatter

Q 57. Which of the following formulae can be used to calculate the average of the third highest score and the third lowest score from the given list of scores?

	A	B
1	Name	Score
2	Tanya	18
3	Dhruv	15
4	Monica	20
5	Neelay	16
6	Aakash	26
7	Arijit	14
8	Divya	19
9	Ajoobi	29
10	Jai	13
11	Aman	25
12	Deepti	17
13	Rahul	27

- Ops:
- A. ☐ =AVERAGE((SMALL(3,B2:B13)),LARGE(3,B2:B13))
 - B. ☐ =AVERAGE((SMALL(A2:A13,0)),LARGE(B2:B13,0))
 - C. ☐ =AVERAGE((SMALL(B2:B13,0)),LARGE(B2:B13,0))
 - D. ☐ =AVERAGE((SMALL(B2:B13,3)),LARGE(B2:B13,3))

Q 58. Which of the following formulae can be used to determine the total sales for Apples in South India?

	A	B	C	D	E	F	G	H	I
1	Region	City	Chain	Product	Total Sales				
2	North India	Agra	Apna Bazar	Orange	3451				
3	North India	Meerut	Apna Bazar	Apple	6753				
4	North India	Kanpur	Apna Bazar	Banana	5364				
5	North India	Gurgaon	Apna Bazar	Orange	7685				
6	North India	Lucknow	Apna Bazar	Grapes	7875				
7	North India	Banaras	Apna Bazar	Banana	4567		Sumif		
8	North India	Ghaziabad	Apna Bazar	Apple	8976		South India	Apple	
9	Central India	Bhopal	Fruit Bazar	Orange	3875				
10	Central India	Indore	Fruit Bazar	Mango	8709				
11	South India	Mumbai	Fruit Retailer	Banana	5478				
12	South India	Pune	Fruit Retailer	Grapes	3427				
13	South India	Hyderabad	Fruit Retailer	Apple	6537				
14	South India	Kochi	Fruit Retailer	Orange	6754				
15	South India	Chennai	Fruit Retailer	Mango	8765				
16	South India	Vellore	Fruit Retailer	Apple	8079				
17	South India	Bengaluru	Fruit Retailer	Orange	3906				
18	South India	Mysore	Fruit Retailer	Grapes	4582				

- Ops:
- A. ☐ =SUMIFS(E2:E23,A2:A23,A11,D2:D23,D13)
 - B. ☐ =SUMIFS(E2:E23,A2:A23,"A11",D2:D23,"D13")
 - C. ☐ =SUMIFS(E2:E23,A11,A2:A23,D13,D2:D23)
 - D. ☐ =SUMIFS(E2:E23,(A2:A23,A11),(D2:D23,D13))

Q 59. Which of the following formulae can be used to calculate the average of the fourth highest score and the fourth lowest score from the given list of scores?

	A	B
1	Name	Score
2	Tanya	18
3	Dhruv	15
4	Monica	20
5	Neelay	16
6	Aakash	26
7	Arijit	14
8	Divya	19
9	Ajoobi	29
10	Jai	13
11	Aman	25
12	Deepti	17
13	Rahul	27

- Ops:**
- A. ☐ =AVERAGE((SMALL(B2:B13,4)),LARGE(B2:B13,4))
 - B. ☐ =AVERAGE((SMALL(A2:A13,0)),LARGE(B2:B13,0))
 - C. ☐ =AVERAGE((SMALL(B2:B13,0)),LARGE(B2:B13,0))
 - D. ☐ =AVERAGE((SMALL(4,B2:B13)),LARGE(4,B2:B13))

Q 60. Which type of view should you use to delete, copy, paste or move slides in MS PowerPoint?

- Ops:**
- A. ☐ Normal
 - B. ☐ Slide Show
 - C. ☐ Notes Page
 - D. ☐ Slide Sorter

Q 61. You type a name into the To, Cc or Bcc field and AutoComplete fails to find it. Which of the following options can be used to view the contents of your Address Book?

- Ops:**
- A. ☐ Ctrl + N
 - B. ☐ Ctrl + O
 - C. ☐ Ctrl + A
 - D. ☐ Ctrl + K

Q 62. You have linked a numbered item and chosen to create a link that references its page number. Additionally, you want that if the item is moved to a different page, the reference should automatically update itself. Which of the MS Word features will you prefer to achieve this?

- Ops:**
- A. ☐ Reference
 - B. ☐ Navigation
 - C. ☐ Tagging
 - D. ☐ Cross-reference

05. Pseudo Code

18 questions, 1 mark each

Q 63. What will be the output of the following pseudocode for $a = 8$?

```
1. Integer fun(Integer a)
2.   if(a > 2)
3.     fun(a - 2)
4.   Print a
5.   fun(a/2)
6.   end if
7. end function fun()
```

- Ops:**
- A. ☐ 6 8 10 12 14
 - B. ☐ 8 6 4 2
 - C. ☐ 4 6 3 8 4
 - D. ☐ None of the mentioned options

Q 64. What will be the output of the following pseudocode for $a = 27$?

```
1. Integer fun1(Integer a)
2.   if((a/3) > (a-3))
3.     return a
4.   else
5.     return fun1(fun1(a-3))
6.   end if
7. end function fun1()
```

- Ops:**
- A. ☐ 12
 - B. ☐ 15
 - C. ☐ 6
 - D. ☐ 3

Q 65. What will be the output of the following pseudocode for $p = 22$, $q = 4$, $r = 2$?

```
1. Integer fun(Integer p, Integer q, Integer r)
2.   if(p > 1)
3.     fun(p-r, q+2, r+2)
4.     Print q
5.   end if
6. end function fun()
```

- Ops:**
- A. ☐ 20 18 16 14 12
 - B. ☐ None of the mentioned options
 - C. ☐ 14 12 10 8 6 4
 - D. ☐ 20 14 8 0

Q 66. What will be the output of the following pseudocode?

```
1. Integer a, b, c
2. Set b = 5, a = 2, c = 2
3. if (b > a)
4.   a = a - b
5. Else
6.   c = c + 1
7. End if
8. if (a - 1)
9.   b = c + 1
10. Else
11.   c = c - 1
12. End if
13. if (a + 1)
14.   b = a - 1
15. Else
16.   b = c + 1
17. End if
18. if (1)
19.   b = c + 1
20. Else
21.   c = c - 1
22. End if
23. Print a + b + c
```

[Note: If(x) gets executed if the value inside if(), i.e., x is not zero]

- Ops:**
- A. ☐ 4
 - B. ☐ 6
 - C. ☐ 7
 - D. ☐ 2

Q 67. What will be the output of the following pseudocode?

```
1. Integer a, b, c
2. Set b = 5, a = 2, c = 2
3. if (a)
4.     a = a - 1
5.     a = c
6. Else
7.     c = c + 1
8. End if
9. if (a - 1)
10.    c = c + 1
11. Else
12.    c = c - 1
13. End if
14. Print a + b + c
```

[Note: If(x) gets executed if the value inside if(), i.e., x is not zero]

- Ops:**
- A. ☐ 15
 - B. ☐ 10
 - C. ☐ 7
 - D. ☐ 5

Q 68. What will be the output of the following pseudocode?

```
1. Integer a, b, c
2. Set a = 12, b = 3
3. c = a / b
4. b = a + c
5. a = a - b
6. Print a
```

- Ops:**
- A. ☐ 0
 - B. ☐ 9
 - C. ☐ 13
 - D. ☐ -4

Q 69. What will be the output of the following pseudocode?

```
1. Integer a, b, c, i
2. Set a = 2, b = 4
3. c = a + b
4. b = c MOD a
5. a = a + b

6. b = a + c
7. for(each i from 1 to 2)
8.     b = b - i
9. end for
10. Print b
```

- Ops:**
- A. ☐ 12
 - B. ☐ 3
 - C. ☐ 4
 - D. ☐ 5

Q 70. What will be the output of the following pseudocode?

```
1. Integer a, b, c, i
2. Set a = 2, b = 4
3. c = a + b
4. b = c << 1
5. for(each i from 1 to 2)
6.     b = b + i
7. end for

8. Print b
```

- Ops:**
- A. ☐ 30
 - B. ☐ 15
 - C. ☐ 7
 - D. ☐ 8

Q 71. What will be the output of the following pseudocode?

```
1. Integer a, b, c
2. Set a = 10, b = 1, c = 3
3. a = a + 1
4. if (b mod c && c mod a)
5.     a = a + 19
6. End if
7. Print a + c - b
```

[Note:- mod finds the remainder after the division of one number by another. For example, the expression "5 mod 2" would evaluate to 1 because 5 divided by 2 leaves a quotient of 2 and a remainder of 1.

&&: Logical AND - The logical AND operator (&&) returns the Boolean value true(or 1) if both operands are true and return false (or 0) otherwise

If(x) gets executed if the value inside if(), i.e., x is not zero]

- Ops:**
- A. ☐ None of the mentioned options
 - B. ☐ 2
 - C. ☐ 5
 - D. ☐ 32

Q 72. Consider the following pseudocode.

```
1. Integer fun(Integer arr[ ], Integer len)
2.     Integer a
3.     if(len EQUALS 1)
4.         return arr[0]
5.     else
6.         a = fun(arr, len-1)
7.     end if
8.     if(a < arr[len-1])
9.         return a
10.    else
11.        return arr[len-1]
```

What will be the output of the given code for the following input?

[Inputs: arr[] = {24, 20, 40, 60}, len = 4]

- Ops: A. ☐ 20
B. ☐ 60
C. ☐ 24
D. ☐ 80

Q 73. What will be the output of the following pseudocode for $n = 5$ and $\text{arr[]} = \{20, 10, 30, 8, 96\}$?

```
1. Integer fun(Integer arr[], Integer n)
2.   Integer i
3.   if(n EQUALS 1)
4.     return arr[0]
5.   else
6.     i = fun(arr, n - 1)
7.   end if
8.   if(i < arr[n - 1])
9.     return i
10.  else
11.    return arr[n - 2]
12.  end if
13. End function fun()
```

- Ops: A. ☐ 8
B. ☐ 20
C. ☐ 10
D. ☐ 30

Q 74. What will be the output of the following pseudocode?

```
1. Integer i, j
2. Set j = 2
3. for (each i from 1 to 4)
4.     if (j < 5)
5.         i = i + 3
6.         j = j + i - 3
7.     end if
8. end for
9. Print j
```

- Ops:** A. ☐ 3
B. ☐ 2
C. ☐ 0
D. ☐ 1

Q 75. What will be the output of the following pseudocode?

```
1. Integer a, b, c, i
2. Set a = 12, b = 15, c = 10
3. for(each i from 0 to 3)
4.     b = b + a - i
5.     Print b
6.     while (a >= 1)
7.         c = c + b + a
8.         c = c / 2
9.         a = a - 3
10.    end while
11.    Print c
12. end for
```

- Ops:** A. ☐ 27 30 26 30 24 30 21 30
B. ☐ 28 30 24 30 21 31 22 33
C. ☐ 28 31 27 30 24 30 22 30
D. ☐ 27 31 25 30 26 30 22 30

Q 76. For which of the following inputs, the following pseudocode will print "Magnificent Number"?

```
1. Integer a, b, c, i, f
```

```

2. Set a = 241
3. while(a NOT EQUALS 0)
4.     c = a MOD 10
5.     b = b + c
6.     a = a / 10
7. end while
8. for(each i from 2 to b/2)
9.     if(b MOD i EQUALS 0)
10.        Print "Normal Number"
11.        f = 1
12.        Jump out of the loop
13.    end if
14. end for
15. if (b EQUALS 1)
16.    Print "Normal Number"
17. end if
18. if(f NOT EQUALS 0)
19.    Print "Magnificent Number"
20. end if

```

Input

1. 787
2. 241

Q 77. Which of the following two codes is more efficient?

Code 1

```

1. Integer n1 = 8, n2 = 24, i, res
2. for(each i from 1 to n1) and for(each i from 1 to n2)
3.     if( (n1 MOD i EQUALS 0) AND (n2 MOD i EQUALS 0)
4.         res = i
5.     end if
6. end for
7. Print res

```

Code 2

```

1. Integer n1 = 8, n2 = 24
2. while (n1 NOT EQUALS n2)
3.     if(n1 > n2)
4.         n1 = n1 - n2

```

```
5.         else
6.             n2 = n2 - n1
7.         end while
8. Print n1
```

- Ops: A. ☐ Code 1
- B. ☐ Both codes won't give any output
- C. ☐ Both codes are equally efficient
- D. ☐ Code 2

Q 78. What will be the output of the following pseudocode for a = 2, b = 4?

```
1. Integer funn(Integer a, Integer b)
2.     if(-3 > -2)
3.         a = a + b
4.         return a
5.     Else
6.         b = b + a
7.         return b
8.     End if
9. End function funn()
```

- Ops: A. 0
- B. 6
- C. 1
- D. 3

Q 79. What will be the output of the following pseudocode?

```
1. Integer a, b, c
2. Set a = 1, b = 4
3. for (each c from 6 to 7)
4.     if(b - 4)
5.         a = a + 1
6.     Else
7.         if(a + 10)
8.             a = 0
9.         End if
10.        a = a + 3
11.    End if
12.    a = a + 2
13. End for
14. Print b + a
```

[Note: If(x) gets executed if the value inside if(), i.e., x is not zero]

- Ops: A. ☐ 1
B. ☐ 9
C. ☐ 5
D. ☐ 8

Q 80. What will be the output of the following pseudocode?

```
1. Integer f
2. set f = 5
3. do
4.     f = f - 1
5.     print f/4 * 9
6.     continue with next iteration
7.     print f * 17
8.     f = f - 1
9. while(f not equals 2)
10. end dowhile
```

[Note: A do while loop is a control flow statement that executes a block of code at least once, and then repeatedly executes the block, or not, depending on a given Boolean condition at the end of the block]

- Ops:**
- A. ☐ 0 9 0
 - B. ☐ 0 0 9
 - C. ☐ 0 3 8
 - D. ☐ 9 0 0

01. Sum of Remainders

10 marks

Problem statement

You are given a function,
`int FindSumOfRemainders(int n, int div);`

The function takes two integers 'n' and 'div' as input. Implement the function such that it returns the sum of remainders given by numbers from 1 to 'n' (both inclusive) on being divided by 'div'.

Example:

Input:

12
4

Output:

18

Explanation:

The sum of remainders left by numbers from 1 to 12 on being divided by 4 is $1+2+3+0+1+2+3+0+1+2+3+0 = 18$.

The custom input format for the above case:

12
4
(The first line represents 'n', the second line represents 'div')

Sample Input

15
5

Sample Output

30

The custom input format for the above case:

15
5
(The first line represents 'n', the second line represents 'div')

Instructions :

- This is a template based question, DO NOT write the "main" function.
- Your code is judged by an automated system, do not write any additional welcome/greeting messages.
- "Save and Test" only checks for basic test cases, more rigorous cases will be used to judge your code while scoring.
- Additional score will be given for writing optimized code both in terms of memory and execution time.

Now let's start coding :

Language: C (Gcc 7.5) ▾



Day Mode ▾

> Read-only code below ...

```
1 int FindSumOfRemainders(int n, int div);
2 int main()
3 {
4     //Input read from STDIN
5     int result = FindSumOfRemainders(n, div);
6     //Value in result printed to STDOUT
7     return 0;
8 }
9
```

> Write your code below ...

```
10 int FindSumOfRemainders(int n, int div)
11 {
```


02. K - Largest Smallest Sum

Problem statement

You are given a function,
`int FindSumOfKLargestAndSmallestElement(int* arr, int n, int k);`

The function accepts an integer array 'arr' of length 'n' and an integer 'k'. Implement the function to find and return the sum of k-th largest and k-th smallest element in array 'arr'.

Assumption:

- $1 \leq k \leq n$
- $n > 0$.
- Array index starts from 0.
- All the elements in array are distinct.

Note: If a single element is both k-th largest and smallest number, then return twice of that number.

Example:

Input:

k: 2
arr: 8 2 5 7 3 1

Output:

9

Explanation:

7 is the 2nd largest and 2 is the 2nd smallest element of the array. Sum of these elements is 9. Thus, output is 9.

The custom input format for the above case:

2
6
8 2 5 7 3 1

(The first line represents 'k', the second line represents the size of 'arr', the third line represents the elements of 'arr')

Sample Input

k: 3
arr: 4 9 10 7 13 3 2

Sample Output

13

The custom input format for the above case:

3
7
4 9 10 7 13 3 2

(The first line represents 'k', the second line represents the size of 'arr', the third line represents the elements of 'arr')

Instructions :

- This is a template based question, DO NOT write the "main" function.
- Your code is judged by an automated system, do not write any additional welcome/greeting messages.
- "Save and Test" only checks for basic test cases, more rigorous cases will be used to judge your code while scoring.
- Additional score will be given for writing optimized code both in terms of memory and execution time.

Now let's start coding :

Language: C (Gcc 7.5) ▾



Day Mode ▾

> Read-only code below ...

```
1 int FindSumOfKLargestAndSmallestElement(int* arr, int n, int k);
2 int main()
3 {
4     //Input read from STDIN
5     int result = FindSumOfKLargestAndSmallestElement(arr, n, k);
6     //Value in result printed to STDOUT
7     return 0;
```

> Write your code below ...

```
10 int FindSumOfKLargestAndSmallestElement(int* arr, int n, int k)
11 {
12     /* Write your code here. */
13 }
14
15
16
```

1. Reading – Verbal

A	Reading	<p><i>Please read the sentences as you are instructed.</i></p> <ol style="list-style-type: none"> 1. Traffic is a huge problem in Southern California. 2. The endless city has no coherent mass transit system. 3. Sharing rides was going to be the solution to rush-hour traffic. 4. Most people still want to drive their own cars, though. 5. Larry's next door neighbors are awful. 6. They play loud music all night when he's trying to sleep. 7. If he tells them to stop, they just turn it up louder. 8. He wants to move out of that neighborhood. 9. My aunt recently rescued a dog that was sick. 10. She brought her home and named her Margaret. 11. They weren't sure she was going to live, but now she's healthy. 12. I just wish she could get along better with their cat.
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2. Repeat – Verbal

B	Repeat	<p><i>Please repeat each sentence that you hear.</i></p> <p>Example: a voice says, "Leave town on the next train." and you say, "Leave town on the next train."</p>
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3. Short Questions

C	Questions	<p><i>Now, please just give a simple answer to the questions.</i></p> <p>Example: a voice says, "Would you get water from a bottle or a newspaper?" and you say, "a bottle" or "from a bottle" .</p>
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4. Sentence Building

D	Sentence Builds	<p><i>Now, please rearrange the word groups into a sentence.</i></p> <p>Example: a voice says, "was reading" ... "my mother" ... "her favorite magazine" and you say, "My mother was reading her favorite magazine."</p>
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5. Story Retelling

E	Story Retelling	<p><i>You will hear three brief stories. Each story will be spoken once, followed by a beep. When you hear the beep, you will have 30 seconds to retell the story in English. Try to retell as much of the story as you can, including the situation, characters, actions, and ending. You will hear another beep at the end of the 30 seconds.</i></p>
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6. Open Questions

F	Open Questions	<i>You will hear two questions about family life or personal choices. Each question will be spoken twice, followed by a beep. When you hear the beep, you will have 40 seconds to answer the question. You will hear another beep at the end of the 40 seconds.</i>
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