Accenture Placement Preparation Program – 2024-2025

Disclaimer:

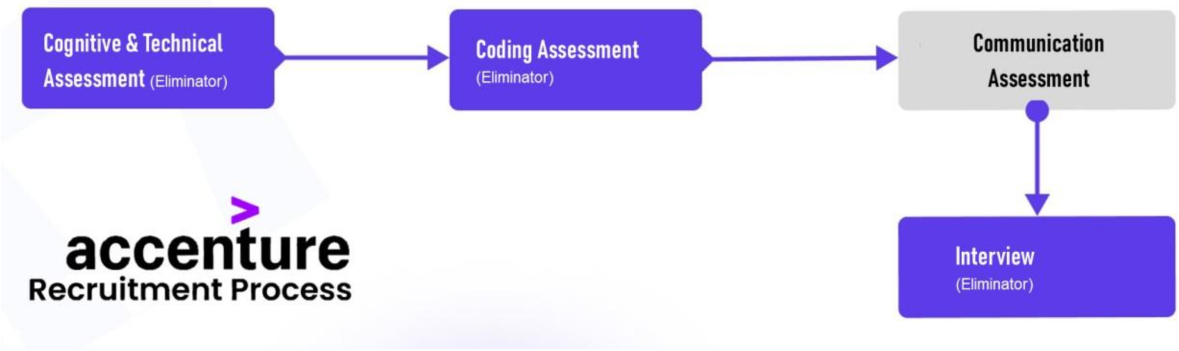
1. This document has been recreated based on post-test discussions with test takers.
2. While the distribution of questions across topics is expected to be similar, variations may occur.
3. Use this document as a guide for indicative preparation, rather than an exact replica of the question pattern for the Accenture Online Test.

Accenture Roles:

This year Accenture recruitment for 2025 pass-outs has come up with two roles with exciting packages. They are as follows.

- **Associate Software Engineer**
- **Advanced Associate Software Engineer**

Accenture Recruitment Process



Accenture Online Test Pattern:

Round	Round Name	#Qs	Sections Name	Duration (In Mins)
1	Cognitive and Technical Assessment	90	English Ability	90
			Critical Reasoning and Problem Solving	
			Abstract Reasoning	
			Common Applications and MS Office	
			Pseudocode	
			Networking Security and Cloud	
2	Coding	2	-	45

Accenture Online Test Syllabus:

Section	Topic
English Ability	● Reading Comprehension ● Articles ● Prepositions ● Sentence Correction, ● Speech and Voice ● Tenses, Synonyms ● Antonyms, Spellings ● Idioms and Phrases
Critical Reasoning and Problem-solving	● Critical reasoning ● Flowcharts ● Data arrangements ● Data sufficiency ● Syllogisms
Abstract Reasoning	● Coding and Decoding ● Visual Reasoning ● Odd man out ● Series

Pseudocode	• Sequence • While • Repeat-until • For • If-then-else • Case
Common Applications and MS Office	**MS Word** • Creating, editing, saving and printing text documents • Font and paragraph formatting • Simple character formatting • Inserting tables, smart art, page breaks • Using lists and styles • Working with images • Using Spelling and Grammar check • Understanding document properties • Mail Merge **MS Excel** • Spreadsheet basics • Creating, editing, saving, and printing spreadsheets • Working with functions & formulas • Modifying worksheets with color & autoformats • Graphically representing data: Charts & Graphs • Speeding data entry: Using Data Forms • Analyzing data: Data Menu, Subtotal, Filtering Data **MS PowerPoint** • Securing & Protecting spreadsheets • Opening, viewing, creating, and printing slides • Applying auto layouts • Adding custom animation • Using slide transitions • Graphically representing data: Charts & Graphs • Creating Professional Slides for Presentation.
Network Security and Cloud	• Data and Computer Communication Networks • Mobile & Wireless Networks • Cryptography and Network Security • Database Security

	● Software Security ● Biometric Security
Coding	● Data types ● Operators ● Arrays ● Strings ● Decision Making ● Looping ● Functions Scenario-based questions

Accenture Question Paper Analysis

- Difficulty level of Pseudocode questions ranged from easy to moderate.
- Difficulty level of English Ability questions ranged from easy to moderate.
- Difficulty level of Critical Reasoning and Problem Solving ranged from moderate to difficult.
- Most of the questions in Critical Reasoning and Problem-Solving were from Data Arrangement Critical Reasoning, and Flow Charts.
- Most of the questions in the Abstract Reasoning section were from Number Series, Visual Reasoning, and Coding and Decoding.
- Basic questions from MS Word, MS Excel, and Computer Applications were asked in the Common Applications and MS Office section.
- Overall Test Difficulty level settles around MODERATE.

Accenture English Ability

1. Find out which underlined part of the sentence below has an error and mark the option accordingly. Butterflies are **considered as the main** agent **of transferring** pollen grains. **Sometimes, this gives rise to different** species of flowers, a true fascination **unknown to the science world**.
    a) Sometimes, this gives rise to different
    b) Considered as the main
    c) Of transferring
    d) Unknown to the science world

Answer: B

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

Dogs, often hailed as humans' best friends, have been the topic of many scientific studies looking into how they might boost our well-being. It is likely that humans and dogs have shared a special bond of friendship and mutual support ever since at least the Neolithic period — but why has this bond been so long-lasting?

A recent study showed that owning a dog reduces a person's risk of premature death by up to a third. Also, researchers at the University of Harvard in Cambridge, MA, suggest that dog owners have a lower risk of heart disease. Dogs can strengthen our health not just as we grow older, but also much, much earlier than that: before we are even born. Research published last year suggests that children who were exposed to dogs while still in the womb — as their mothers spent time around dogs during pregnancy — had a lower risk of developing eczema in early childhood. When we interact with dogs, our oxytocin levels shoot up. Since this is the hormone largely responsible for social bonding, this hormonal "love injection" boosts our psychological well-being.

Previous studies analyzed in the review have revealed that dog owners have more positive social interactions and that the presence of canine friends makes people more trusting.

Moreover, dogs appear to reduce symptoms of depression and render people more resilient to stress. That is why dogs are often used as therapy animals.

2. Choose the option that is closest in meaning to the word 'resilient' as used in the passage
    a) Stable
    b) Unadaptable
    c) Immune
    d) Determined

Answer: C

3. The passage is primarily concerned with:
    a) Emphasizing how building a bond with dogs can help us in health matters
    b) Outlining the relationship of humans and dogs.
    c) Highlighting that dogs are used in medical aid now-a-days.
    d) Listing the benefits of owning a dog and how to establish a bond with them.

Answer: A

4. Mark the option containing the word that is opposite in meaning to the **underlined** word given below. Roger is a **consummate** player who earned over nine million dollars in the tournament last year.
    a) Incompetent
    b) Best
    c) Slow
    d) Professional

Answer: A

5. The author feels that the owing a dog affects the mental health:
    a) Quickly
    b) Positively
    c) Emphatically
    d) Negatively

Answer: B

6. Mark the option which is closest in meaning to the word given below.
   COHERENCE
    a) Fighting
    b) Unity
    c) Companionship
    d) Slowness

Answer: B

7. Choose the best replacement for the **underlined** part of the sentence.

The match was expected to be won by India as the players were very active on the field.

a) The India was expected to win the match
b) The match was being expected to be won by the India
c) It is being expected by the India to win the match
d) India was expected to win the match

Answer: D

8. Choose the best replacement for the **underlined** part of the sentence.

You should **always keep away** from bad company.

a) Always keep away
b) Keep away always
c) Keep yourself away always
d) Always keeps away

Answer: C

9. The sentences given below are from a coherent passage when arranged logically. Choose the option that gives the correct sequence.

1) The practice is widespread: honeybees are kept in large cities and villages, on farms and rangelands, in forests and deserts, Arctic and Antarctic from the Equator to even the frozen poles of Earth.
2) This has helped many people to improve their economic stability by giving them a secondary source of income.
3) Bee-keeping is caring for and management of colonies of honeybees.
4) They are kept for their honey, wax, and also their services as pollinators of fruit and vegetable blossoms, or even as a hobby

a) 1 3 2 4
b) 1 3 4 2
c) 3 2 1 4
d) 3 4 1 2

Answer: C

10. Choose the best replacement for the **underlined** part of the sentence. **Sam and Tim's wife** are coming this afternoon.

a) Sam's and Tim's wives
b) Sam and Tim's wives
c) Sam's and Tim's wife
d) Sam's and Tim wife

Answer:

Accenture Critical Reasoning and Problem Solving

1. **Statements:**

   I. Some apples are guavas.

   II. All apples are oranges.

   III. No orange is a papaya.

   IV. All papayas are guavas.

   Conclusions:

   I. Some papayas are apples.

   II. Some oranges are papayas.

   III. Some guavas are oranges.

   a) Only conclusion III follows
   b) Either conclusion I or conclusion III follows
   c) None follow
   d) Only conclusion I follows

   Answer:

2. In the following question, the symbols +, -, *, /, and $ are used with the following meanings illustrated.

   'X * Y' means 'X is either greater than or equal to Y'.

   'X - Y' means 'X is neither greater than nor smaller than Y'.

   'X $ Y' means 'X is smaller than Y'.

In the following question assuming the given statements to be true, find out which of the three conclusions I, II and III given below the is/are definitely tree and mark your answer accordingly.

Statements:

I. M + J
II. J/Y
III. Y$K
IV. K-N

Conclusions:

I. K * J
II. J + N
III. K $ M

a) Only conclusion I and conclusion III follow
b) None follow
c) Only conclusion I and conclusion II follow
d) Only conclusion II and conclusion III follow

Answer: B

3. Read the following argument and mark which of the following assumptions is made in the argument. More than one billion years' worth of rocks have gone missing from the geologic record of Grand Canyon.

   a) Earth has transitioned from an older setting to the modern one during these one billion years.
   b) The western half of the Grand Canyon has gone through a very different geologic contortion compared to the eastern half.
   c) Series of Faulting events in that region possibly tore up the earth around the Canyon causing rocks and sediments to wash away in the ocean.
   d) None of the mentioned options.

   Answer:

4.Mark the option containing the sentence that strengthens the argument given below. Argument: People generally wear light colour clothes in summer.

a) They are easy to wash and easy to dry.
b) Light colour clothes are bad absorber of light.
c) These light colour clothes are thick and warm.
d) They are readily and

cheaply available in the summer. **Answer: B**

4. 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: How many questions did Jacob attempt in the English test?

Statements:

I. There were 35 questions in the test.

II. He got 25 marks in the test, in which every correct answer fetched 1 mark, for every unattempt question fetched 0 mark, and for every incorrect answer ⅓ mark was deducted from the total.

a) Each statement alone is sufficient to answer the question.
b) Only one of the statements, alone, is sufficient to answer the question but other statement is not.
c) Statements I and II together are not sufficient to answer the question asked and additional data to the problem is needed.
d) Both statements I and II together are sufficient to answer the question asked but neither statement alone is sufficient.

Answer: D

Direction for Q6 to Q9: Read the following information given below and answer the questions that follow:

Six friends - Sheldon, Jack, Justin, Bruce, Peter, and Nicholas are sitting around a circular table, not necessarily in the same order. All of them are facing the centre.

I. Peter is sitting exactly opposite to Jack.

II. Justin is the only person sitting between Bruce and Peter.

III. Sheldon is sitting to the immediate left of Jack.

5. Who among the following are not the immediate neighbors?

a) Bruce and Justin
b) Nicholas and Peter
c) Nicholas and Justin
d) Jack and Sheldon

Answer: C

6. Who is sitting second to the right of Peter?

a) Peter
b) Justin
c) Jack
d) Sheldon

Answer: D

7. Who is sitting to the opposite of Sheldon?

a) Bruce
b) Justin
c) Peter
d) Nicholas

Answer: B

8. Which of the following is false regarding the position of Jack?

a) Jack is sitting third of the left of Nicholas.
b) Jack is sitting second to the right of Nicholas.
c) Jack is sitting between Bruce and Sheldon.
d) Jack is sitting to the immediate left of Bruce

Answer: A

Direction for Q10 to Q13: Read the following information given below and answer the questions that follow:

There were six participants - M, N, O, P, Q and R in the final of coffee making competitions. The six participants belong to six different locations - Delhi, Mumbai, New York, Paris, Tokyo and London. David, the judge of this competition, rated the coffee prepared by the participants on a scale of 1 to 10 giving a unique rating to each participant.

I. R was from London.

II. Participants from New York got the highest ranking, but was not O.

III. Only two participants got ratings in even numbers.

IV. The rating of O was double the rating of Q.

V. N got the minimum rating and the rating was an even number.

VI. O got a higher rating than M.

9. What was the second highest rating given?

a) 7
b) 8
c) 9
d) 6

Answer: A

10. Who belongs to New York?

a) P
b) Q
c) Cannot be determined
d) M

Answer: A

11. What was the rating of coffee prepared by Q?

a) 3
b) 2
c) 6
d) 5

Answer: A

12. Which of the following statements is definitely true?

a) P got a rating of 10
b) M got a rating of 5
c) O belongs to Mumbai
d) Q belongs to Paris

Answer: B

Direction for Q14 to Q15: The statement given below is followed by two conclusions.

Assume the statement is true, even if it contradicts commonly known facts, and determine the conclusion/s that logically follow/s from the statement.

13. **Statement**: Social gatherings could turn into COVID super spreader events if safety norms are flouted.

Conclusions:

I. The coming festive season could be dangerous if safety norms are flouted and lead to a surge in COVID cases.

II. Vaccine provides over 95% protection against severe disease and hospitalization.

a) Both conclusion I and conclusion II follow
b) Only conclusion I follows
c) Only conclusion II follows
d) Neither conclusion I nor conclusion II follows

Answer: B

14. **Statement**:

Government has started to offer incentives and subsidies on Electric Vehicles.

Conclusions:

I. Pollution can be mitigated by the use of electric vehicles.

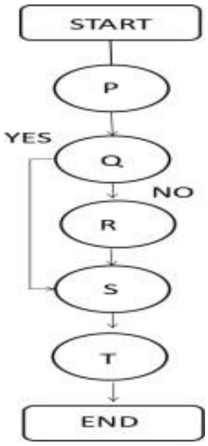
II. Electric vehicles are not pocket friendly as compared to conventional petrol/diesel vehicles.

a) Both conclusion I and conclusion II follow
b) Only conclusion I follows
c) Neither conclusion I nor conclusion II follows
d) Only conclusion II follows

Answer: D

Direction for Q16 to Q18: Study the flow given in the following diagram and answer the questions that follow.

Box No	1	2	3	4	5	6	7	8	9	10
	-4	0	-1	2	-2	4	-3	6	-4	8



P-> Add: (number in Box 9) + (number in Box 6). Put the result in Box 3.

Q-> Is (number in Box 2) < (number in Box 3)?

R-> Divide: (number in Box 1) / (number in Box 4). Put the result in Box 10.

S-> Add: (number in Box 10) + (number in Box 5). Put the result in Box 8.

T-> Multiply: (number in Box 8) * (number in Box 4). Put the result in Box 7.

15. At the end of the flowchart which of the following boxes will have the lowest value?

    a) Box 8
    b) Box 7
    c) Box 2
    d) Box 10

Answer: B

16. How many boxes have positive integral values at the end of flowchart?

    a) 2
    b) 4
    c) 6
    d) 0

Answer: A

17. Find the value of {(number in Box 10) + (number in Box 6)} at the end of the flowchart.

    a) 4
    b) -2
    c) 2
    d) -4

Answer: C

Accenture Abstract Reasoning

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

a) BDG
b) FHK
c) OQT
d) NPT

Answer: D

2. Mark the option that best completes the comparison. Sun: Solar System :: Brakes : ?

a) Car
b) Office
c) Recess
d) Time

Answer: A

3. Mark the option that best completes the comparison. Rainbow: Sky :: Movie :?

a) Car
b) Picture
c) Theatre
d) Actor

Answer: C

4. Find the missing term in the series given below: 12, 20, 33, 51, **?**, 102

a) 69
b) 82
c) 74
d) 78

Answer: C

5. Find the missing term in the series given below: 112, 111, 107, 98, **?**, 57

a) 83
b) 79
c) 82
d) 87

Answer: C

6. Find the missing term in the series given below: CEG, PSU, KMO, XAC, SUW,?

a) FIK
b) EHJ
c) FHJ
d) JKL

Answer: A

7. If in a certain code language, "PACEMAKING" is coded as "UEFGNFOLPH", then how would "KABALISTIC" be coded in the same language?

a) PEECMNWWKD
b) PEEDMNWYKD
c) OEECNMWWKE
d) PEDCNMWWKD

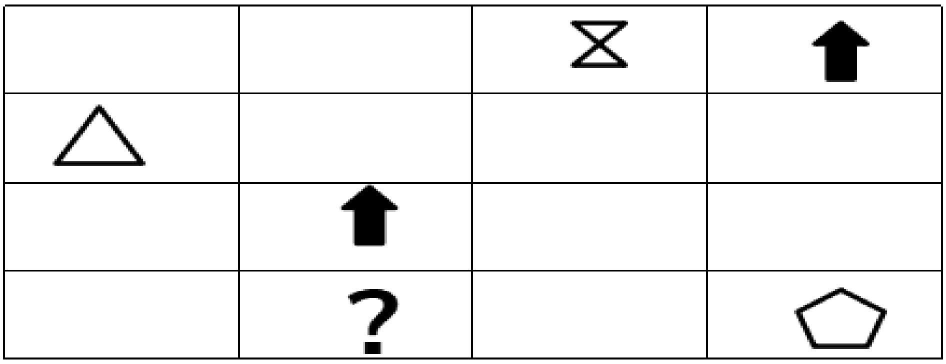
Answer: A

8. The Problem Figure given below has the properties of a Latin Square. Each blank cell in the Problem Figure will contain an item based on the following properties of the Latin square:

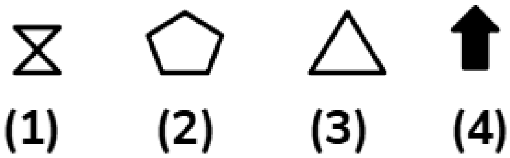
1. A row or column never contains the same item twice
2. Same items are there in every row
3. Same items are there in every column

From the items given in the **Response Figure**, choose the one that should come in place of "?" in the **Problem Figure**.

Problem Figure:



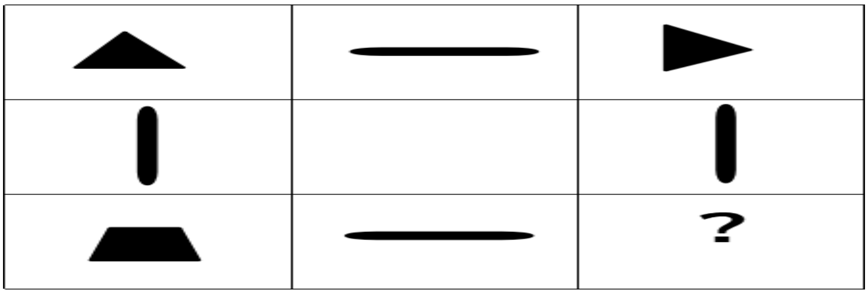
Response Figure:

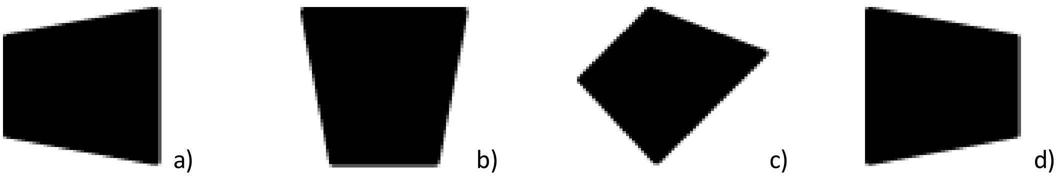


a) (2)
b) (1)
c) (3)
d) (4)

Answer: B

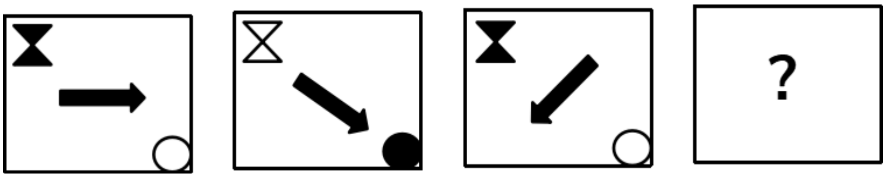
9. Mark the option that most logically completes the following sequence. **Problem Figure**:

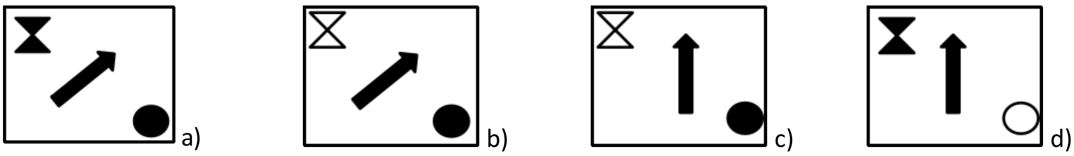




Answer: D

10. Mark the option that most logically completes the following sequence.





Answer: C

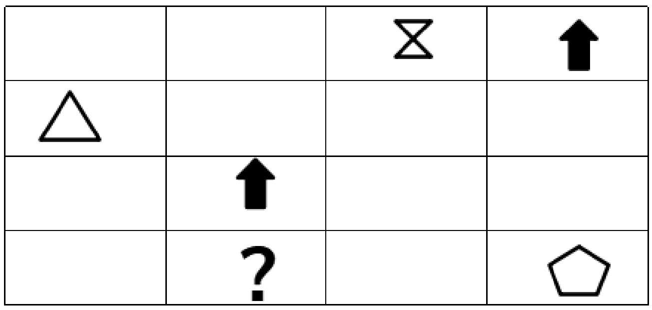
11.The Problem Figure given-below has the properties of a Latin Square. Each blank cell in the Problem Figure will contain an item based on the following properties of the Latin square:

1. A row or column never contains the same item twice
2. Same items are there in every row
3. Same items are there in every column

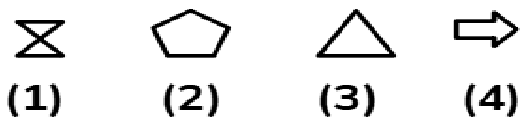
From the items given in the Response Figure, choose the one that should come in place of "?" in the **Problem Figure**.

Problem Figure:

Problem Figure:



Response Figure:



a) (3)
b) (2)
c) (4)
d) (1)

Answer: B

12. Mark the option that best completes the comparison. Tree : Seed :: Cow : ?

a) Calf
b) Colt
c) Milk
d) Leather

Answer: A

13. If in a certain code language, button is called shirt, shirt is called shampoo, shampoo is called brush, brush is called toothpaste, and toothpaste is called mat, then which among the following is used to wash hair?

a) Mat
b) Brush
c) Toothpaste
d) Shampoo

Answer: B

14. If in a certain code language, button is called shirt, shirt is called shoe, shoe is called sock, sock is called washing soap, and washing soap is called mat, then which among the following is used to wash a dirty shirt?

a) Cloth
b) Washing Soap
c) Socks
d) Mat

Answer: D

Accenture Pseudocode

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

```
1    Integer a, b, c
2    Set a=2, b=6, c=8
3    a=(10+9)+c
4    if((c+b)>(a-c))
5            a=b+c
6            b=b+b
7    End if
8    Print a+b+c
```

a) 23
b) 41
c) 48
d) 58

Answer: B

Explanation: In the Line (Statement) no. 3, it is updating the value of variable 'a' from 2 to (10+9)+c =>19+8=> 27

In Line (Statement) no. 4, it is a conditional statement and evaluates expression with the updated value of variable a, because the order of the statement matters. Since (c+b means 8+6 =14) is not greater than (a-c means 27-8=19), the 'if' body will not be executed. That's why it will come directly at statement 8 and will display the sum of a+b+c, which is 27+6+8=41, which means option B will be the correct answer from the above-given options.

2. What will be the output of the following pseudocode for a=0, b=2, c=10?

```
1
2 Integer funn(Integer a, Integer b, Integer c)
3       b=7+a
4       a=(a+c)+a
5       b=(b+b)+c
6       c=1+b
7       return a+b+c
8 End function funn( )
```

a) 59
b) 68
c) 70
d) 39

Answer: A

Explanation: Initial values will be updated as per the order of statements. Like in Line (statement) no. 3: variable 'b' will be updated with a value of (7+a) which means 7+0=7. Then, in line 4, variable 'a' will be updated with value (a+c)+a which is (0+10)+0=10. Now, in line 5 'b' will be repudiated with (b+b)+c. Keep remembering "Precedence of Operators" while assigning the values in 'b'. First, it will execute parenthesis () and will retrieve the current value of b which has updated from line 3 then it will add with value of 'c'. After execution of line 5 variable 'b' will be updated with value (7+7)+10=24. Then, in line 6, the value of variable 'c' will be updated with 1+b. The last value of b is 24 so variable 'c' will be updated with 1+24=25. Now, from line 7 updated values of variables a, b, and c will be added together and return from the function. So the final (return) value will be a+b+c => 10+24+25=59. So the final answer will be option A, 59.

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

```
1 Integer pp, qq, rr
2 Set pp=0, qq=6, rr=7
3 pp=rr+pp
4 pp=(rr&4)^rr
5 if((qq&pp&rr)<(rr&qq))
6       if((qq^pp)<(rr+qq))
7             rr=(3+1)^pp
8        End if
9 End if
10 Print pp+qq+rr
```

Note:

&: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the second operand. If both bits are 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

^ is the bitwise OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0

a) 29
b) 18
c) 10
d) 16

Answer: D

Explanation: In line 3, variable pp will be updated with value 7+0=7. In line 4, variable pp will be repudiated; first parenthesis will be resolved/evaluated then the value will be evaluated with variable rr with XOR operator, means (7&4)^7=4^7=3. In line 5, 'if' condition will be evaluated, (6&3&7) < (7&6) => 2<6, since the condition is True, it will go inside, and then from line 6, it will evaluate the next condition in inner 'if', (6^3)<(7+6) => 5<13, since the condition is True, line 7 will be executed. In line 7, variable rr will be updated with value (4^3)=7. Now statement 10 will be executed with an updated value of variables pp, qq and rr, which means 3+6+7=16. So the final output will be 16, which is option D.

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

```
Integer p,q,r
Set p=9, q=6, r=10
if((q^p^r)>(r^q))
      r=(11&12)+q
End if
if((q^6^8)>(p^4))
        p=(r+3)&r
End if
Print p+q+r
```

Note:

&: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the second operand. If both bits are 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

^ is the bitwise OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

a) 20
b) 27
c) 25
d) 36

Answer: C

Explanation: In line 3, 'if' will be checked for the condition: (6^9^10) > (10^6) => 5 > 12 => False. Since the condition is false, line 4 will be skipped, as line 4 is part of 'if'. Then it will come on line 6 and will check the next 'if' condition, which is: (6^6^8) > (9^4) => 8 > 13 => False. Since this 'if' condition is false, it will skip line 7. Then it will come on line 9, and will add all three variables: 9+6+10=25, which is option C.

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

```
1  Integer pp,qq,rr
2  Set pp=1, qq=2, rr=8
3  if((5+8)<(7+qq))
4          if((qq+pp)<(pp=qq))
5                  rr=(rr+6)+rr
6                  rr=(qq+pp)+pp
7          End if
8           rr=rr+pp
9  Else
10         if((pp+qq-rr)<(rr+pp))
11                 pp=pp+rr
12         End if
13         rr=(pp&rr)+pp
14 End if
15 Print pp+qq+rr
```

Note:

&: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the second operand. If both bits are 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

a) 35
b) 49
c) 19
d) 28

Answer: D

Explanation: In line 3, the conditional statement 'if' will evaluate on the basis of given condition, which is, 13<(7+2) => 13 < 9, which is False. Since 'if' condition is False, the cursor of execution will directly come at line 9; an alternate part of 'if' means else block. Inside else block there is one 'if' statement (line 10), so the condition will be executed, which is, (1+2-8)<(8+1) => (-5)<9, which is True, that is why line 11 will be executed and it will update the variable pp. New value for variable pp will be (1+8)=9. Now it will come at line 15 and will add all three variables together and display the result, which will: 9 + 2 + 17 = 28, Option D.

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

```
Integer p, q,r
Set p=8, q=4, r=5
if((r+q) < (q-r) || p>q)
        q=(q&8) &r
End if
Print p+q+r
```

Note:

&: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the second operand. If both bits are 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

II. Logical OR - The logical OR operator (II) returns the Boolean value TRUE(or 1) if either or both operands is TRUE and FALSE(or 0) otherwise

a) 17
b) 10
c) 23
d) 13

Answer: D

Explanation: After initialization of values in variables p, q and r in line 2, line 3 will be executed. There is an 'if' conditional statement, so it will check the condition first. Now, need to understand the 'precedence of operators'. Logical operators execute after relational. Condition is: (5+4) < (4-5) || (8>4) => (9<-1) || (8>4) => False || True=> True.

Since the condition is True, line 4 will be executed, which will update the value of variable q: (4&8)&5 => 0. Now it will come at line 6, and will add all three variables with updated values: 8+0+5=13, Option D.

7. What will be the output of the following pseudo code for a=1,b=2,c=9?

```
Integer funn( Integer a, Integer b, Integer c)
        for(each c from 5 to 9)
            if((b+5)>(a-b))
              a=(b+5)^a
            End if
        b=5^c
        End for
    return a+b
```

Note- ^ is the bitwise OR operator that compares each bit of the first operand to the corresponding bit of the second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

a) 26
b) 55
c) 40
d) 44

Answer: C

Explanation: The pseudocode iterates over 'c' from 5 to 9, updating 'a' and 'b' based on the condition (b + 5) > (a - b). The XOR ('^') operation is applied to update 'a' when the condition is true, and 'b' is updated in every iteration using b = 5 ^ c. Starting with a = 1 and b = 2, after processing each value of `c`, the final values are a = 28 and b = 12. The function returns a + b, which equals 40.

8. What will be the output of the following pseudo code for a=2, b=6, c=5?

```
Integer funn(Integer a, Integer b, Integer c)
        if((a&7&b) >(6&a))
          b=(12+7) +a
          c=(12+4) +b
        End if
        if((2+3)<(5+b))
         b=(b+3)+c
        a=(9&10)+c
        End if
    return a+b+c
```

Note-&: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the second operand. If both bits are 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

a) 33
b) 32
c) 41
d) 28

Answer: B

Explanation: The code first checks if (a & 7 & b) > (6 & a); since this is false for a = 2 and b = 6, the first block is skipped. Next, it checks if (2 + 3) < (5 + b), which is true, so it updates b to 14 and a to 13. Finally, it returns the sum a + b + c = 13 + 14 + 5 = 32. Option B is the right answer from the given options.

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

```
Integer p,q,r
Set p=0, q=8, r=10
if(p<r && (p&q)<r)
        q=4&q
         p=(q+3)^r
    End if
    r=(q&1)+p
    q=(q^9)+p
    Print p+q+r
```

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

&: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the second operand. If both bits are 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

^ is the bitwise exclusive OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

a) 45
b) 36
c) 31
d) 38

Answer: B

Explanation: The code checks if p < r and (p & q) < r, which is true for the initial values p = 0, q = 8, and r = 10. Inside the if block, it updates q to 0 and p to 9. Afterward, r becomes 9 and q becomes 18. Finally, the sum p + q + r = 9 + 18 + 9 = 36 is printed. Option B is the right answer from the given options.

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

```
Integer p,q,r
Set p=1, q=4, r=7
p=(1+8)+q
r=(p&r)+r
r=q+q
if((q+r)<(r-q) && 7>p)
            p=r+q
            p=(p+11)+q
    End if
    Print p+q+r
```

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

&: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the second operand. If both bits are 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

a) 34
b) 20
c) 32
d) 25

Answer: D

Explanation: The code first updates p to 13 and then modifies r to 12 through bitwise AND, and later to 8 by setting r = q + q. The if condition (q + r) < (r - q) is false, so the block inside the if is skipped. Finally, it prints the sum p + q + r = 13 + 4 + 8 = 25. Option D is the right answer from the given options.

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

```
Integer p,q,r
Set p=6, q=3, r=9
if((p&r)<(q-p))
        p=(2^7)+r
        p=(p+3)^r
        q=4^q
    End if
    r=(r+p)&q
Print p+q+r
```

Note- &: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the second operand. If both bits are 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

^ is the bitwise exclusive OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

a) 10
b) 13
c) 12
d) 19

Answer: C

Explanation: The code initializes p = 6, q = 3, and r = 9. It checks the condition if ((p & r) < (q - p)), where p & r evaluates to 0 and q - p is -3. Since 0 < -3 is false, the if block is skipped. The code then updates r with the expression r = (r + p) & q, resulting in r = 3. Finally, it prints p + q + r, which equals 12.

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

```
Integer pp,qq,rr
Set pp=8, qq=4, rr=5
for(each rr from 4 to 5)
        if((rr-pp+qq)<(qq+rr))
              pp=(5+5)+qq
        End if
        pp=(rr+qq)+pp
    End for
    Print pp+qq
```

a) 22
b) 32
c) 27
d) 45

Answer: C

Explanation: The code initializes pp = 8, qq = 4, and runs a loop for rr values from 4 to 5. For rr = 4, the condition is true, so pp is updated to 14, then to 22. For rr = 5, the condition is true again, updating pp to 14, then to 23. Finally, the code prints pp + qq = 23 + 4 = 27.

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

```
Integer p,q,r
Set p=4, q=2, r=4
for(each r from 5 to 6)
      q=(r+r)+q
       if((p+r-q)<(6-p))
           p=p+q
           q=12+r
      End if
  End for
  Print p+q
```

a) 58
b) 34
c) 45
d) 49

Answer: C

Explanation: The code initializes p = 4, q = 2, and runs a loop for r = 5 and r = 6. For r = 5, the condition is true, updating p to 16 and q to 17. For r = 6, the condition is false, but q is updated to 29. The final output is p + q = 16 + 29 = 45. Option C

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

```
Integer a,b,c
Set a=1, b=2, c=9
if((b+c)>(c-b))
      c=a+a
  End if
if((7+3)<(6+a))
       b=12+a
  End if
  Print a+b+c
```

a) 5
b) 1
c) 9
d) 20

Answer: A

Explanation:

Initialization: a is set to 1, b is set to 2, and c is set to 9.

First if: Since (b + c) (11) is greater than (c - b) (7), c becomes 2.

Second if: (7 + 3) (10) is not less than (6 + a) (7), so the second if condition is false.

Output: The final values of a, b, and c are 1, 2, and 2, respectively. So, the output is 1 + 2 + 2 = 5. Option A is the correct answer.

15. What will be the output of the following pseudo code for a=6, b=8, c=4?

```

Integer funn(Integer a, Integer b, Integer c)
 if((c+a+b)<(b+c))
  if((c^b^a)<(b+a+c))
   if ((b+a-c)<(6-b))
      c=(c&11)+a
End if
 End if
  End if
a=1&c
c=a^a
return a+b+c
```

Note- &: bitwise AND - - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the second operand. If both bits are 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

^ is the bitwise exclusive OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

a) 11
b) 5
c) 27
d) 8

Answer: D

Explanation: The pseudo code evaluates several conditions, but the first condition ((c + a + b) < (b + c)) is false for the given values (a = 6, b = 8, and c = 4). As a result, none of the nested conditions are executed. After that, a is updated to 0 using a bitwise AND, and c becomes 0 using a bitwise XOR. The final return value is the sum of a + b + c, which results in 8. Option D is the right answer.

16. What will be the output of the following pseudocode for a=3, b=4, c=4?

```

Integer funn (Integer a, Integer b, Integer c)
 b=c^c
  c=(12+8)+c
if((b&a)<a && 2>a)
 b=4+b
  b=(9+3)+b
Else
a=3^c
End if
return a+b+c
```

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

&: bitwise AND - - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the second operand. If both bits are 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

^ is the bitwise exclusive OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

a) 51
b) 53
c) 56
d) 47

Answer: A

Explanation: The code first calculates b = 0 using the XOR operation c ^ c. Then, it updates c to 24 by adding 20 to the original c. The condition in the if statement is false, so the else block is executed, updating a to 27 using the XOR operation 3 ^ c. Finally, the return value is the sum of a + b + c, which is 51. Option A is the correct answer from the given options.

17. What will be the output of the following pseudo code for a=1, b=6, c=5?

```

Integer funn(Integer a, Integer b, Integer c)
      for (each c from 4 to 5)
          b=c+b
           if((4-c-a)<(a+b))
             b=(b+8)+b
               b=(a^b)+b
            Else
              b=(c^a)+c
            Jump out of the loop
          End if
      End for
  return a+b
```

Note- ^ is the bitwise exclusive OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.

a) 269
b) 279
c) 266
d) 262

Answer: C

Explanation: The code runs a loop where c takes values 4 and 5. In each iteration, b is updated by adding c, then further modified based on the if condition. The condition is true for both values of c, leading to successive updates of b. After the loop, the return value is the sum of a + b, which results in 266. Option C is the right answer from the given options.

Accenture Common Applications and MS Office

1. In MS Word, if you want to repeat the last action performed then which of the following keys should be used?

a) Ctrl+Enter
b) Tab+Enter
c) Alt+Enter
d) Shift+Enter

Answer: A

2. If you will merge all the eight cells shown in the image then which of the following value will remain in the merged cell?

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

a) 4
b) 8
c) 5
d) 1

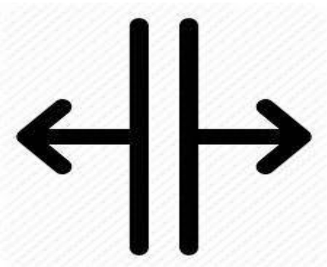
Answer: D

3. In MS Excel, merging cells will keep only ___________________value and discard all other values.

a) Upper-right
b) Upper-left
c) Bottom-right
d) Bottom-left

Answer: B

4. What does the given shape of cursor in MS Excel indicates?



a) Enter data inside a cell
b) Select a cell
c) Select menu
d) Column resizing

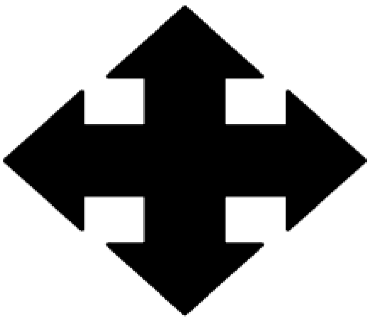
Answer: D

5. Which of the following key is used to exit from the full screen view from YouTube?

a) Enter
b) Esc
c) Windows
d) Capslock

Answer: B

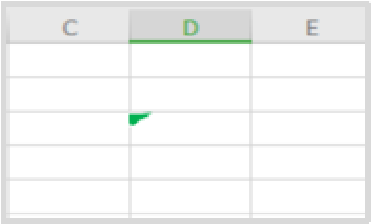
6. What does the given shape of the cursor in MS Excel indicates?



a) Move selected cell
b) Enter data inside a cell
c) Column resizing
d) Select menu

Answer: A

7. What does the green triangle sign on the top-left corner of a cell in MS Excel indicate?



a) Wrong datatype
b) Spelling mistake
c) Error
d) Comment

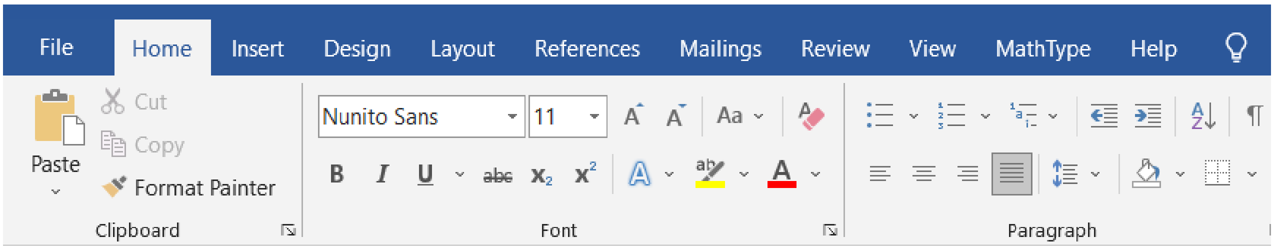
Answer: D

8. While using paint application, if you want to fill ircle with red colour in minimum time then which of the following should be used?

a) 1
b) 2
c) 4
d) 6

Answer: B

9. On which of the following tab you would click if you want to print a document?



a) Insert
b) Design
c) Layout
d) File

Answer: D

10. If you have used Ctrl+Z to undone something then which of the following is used to redo it?

a) Ctrl + Y
b) Ctrl + R
c) Ctrl + x
d) Ctrl + V

Answer: A

11. Which of the following function key is used to refresh a MS Word document?

a) F2
b) F5
c) F9
d) F1

Answer: B

1. Salesforce is an example of which of the following type of cloud-based services?

a) SaaS
b) IaaS
c) IDaaS
d) PaaS

Answer: A

2. As per which of the following essential characteristics of cloud, the hosted application should be reachable via any network-based appliance?

a) On-demand self-service
b) Broad network access
c) Resource pooling
d) Rapid elasticity

Answer: B

3. In which of the following type of hardware virtualization, the guest software run their own isolated domains?

a) None of the mentioned options
b) Emulation virtualization
c) Paravirtualization
d) Full virtualization

Answer: C

4. Which of the following are the PaaS characteristics that define it as a cloud service?

1. Builds on virtualization technology
2. Provides a variety of services to assist with the development, testing, and deployment of apps
3. Integrates web services and databases

a) All 1, 2 and 3
b) 1 and 3
c) 1 and 2
d) 2 and 3

Answer: A

5. Data availability, as a security service is threatened by which of the following type of attack?

a) Denial of service attack
b) Masquerading
c) Modification of message
d) Repudiation

Answer: A

6. The given IP Address belongs to which of the following IP Class?

10.50.13.40

a) Class A
b) Class C
c) Class B
d) Class D

Answer: A

7. In which of the following type of cyber-attacks, emails as shown in the image are sent to victims?

a) Phishing
b) Man-in-the-middle attack
c) Denial of Service attack
d) SQL injection

Answer: A

8. In OSI reference model, which of the following data units is exchanged between two transport layers?

a) Frame
b) Bits
c) Segment
d) Packet

Answer: C

9. Identify the type of topology shown in the image.

a) Bus
b) Mesh
c) Star
d) Ring

Answer: B

10. IPV6 protocol is implemented on which of the following layer of OSI model?

a) Application layer
b) Presentation layer
c) Physical layer
d) Network layer

Answer: D

Accenture Coding

1. **Sum of odd integers in array**

Problem statement

An odd number is an integer which is not a multiple of 2.

You are required to implement the following function:

Int SumOddIntegers(int arr[], int n);

The function accepts an integer array 'arr' of length 'n' as its argument. You are required to calculate the sum of all odd integers in an array 'an' and return the same.

Note:

Array can have negative integers

n > 0

Computed values lie within integer range

Example:

Input:

arr: 1 4 6 7 10 12 11 5

n: 8

Output:

24

Explanation:

The odd integers in array {1, 4, 6, 7, 10, 12, 11, 5} are {1, 7,11, 5} and their sum is 24, hence 24 is returned.

The custom input format for the above case:

8

1 4 6 7 10 12 11 5

(The first line represents 'n' the second line represents the elements of the array)

Sample Input

arr: 2 4 9 7 11 13 25 31 6 8 10 24

n: 12

Sample Output

96

The custom input format for the above case:

12

2 4 9 7 11 13 25 31 6 8 10 24

(The first line represents ‘n’, the second line represents the elements of the array)

Code Solution in C:

```c
#include <stdio.h>
int sumAllOdds(int arr[], int size) {
  int sum = 0;
  for(int i = 0 ; i < size; i++) {
    if(arr[i] % 2 != 0) {   // checks if number is odd
      sum += arr[i];
    }
  }
  return sum;
}

int main() {
  int n;
    scanf("%d",&n);
    int a[n];
    for(int i=0;i<n;i++)
    {
        scanf("%d",&a[i]);
       }
    printf("%d\n",sumAllOdds(a,n));
  return 0;
}
```

Code Solution in C++ :

```cpp
#include <bits/stdc++.h>
using namespace std;
int sumAllOdds(int arr[], int size) {
  int sum = 0;
  for(int i = 0 ; i < size; i++) {
    if(arr[i] % 2 != 0) {   // checks if number is odd
      sum += arr[i];
    }
  }
  return sum;
}

int main() {
   int n;
    cin>>n;
    int a[n];
    for(int i=0;i<n;i++)
    {
        cin>>a[i];
     }
   cout<<sumAllOdds(a,n)<<endl;
  return 0;
}
```

Code Solution in Java Code:

```
import java.util.*;
import java.lang.*;
import java.io.*;

class sumAllOdds{
  public static void main(String args[])
  {
    int odd = 0;
    Scanner in = new Scanner(System.in);
        int n = in.nextInt();
        int[] arr = new int[n];
        for (int i = 0; i <n; i++){
            arr[i] = in.nextInt();
            }
    for (int i = 0; i <n; i++) {
      if ((arr[i] % 2) != 0)
        odd += arr[i];
    }
    System.out.println(odd);
  }
}
```

2. **Inversion count in array**

Problem statement

Let j and k be two indices in an array A.

If j < K and A[j] > A[k], then the pair (j,k) is known as an “Inversion pair”.

You are required to implement the following function:

int InversionCount(int *A, int n);

The function accepts an array ‘A’ of ‘n’ unique integers as its argument. You are required to calculate the number of ‘Inversion pair’ in an array A, and return.

Note:

If ‘A’ is NULL (None in case of python), return -1

If ‘n’ <2, return 0

Example:

Input:

A: 1 20 6 4 5

n: 5

Output:

5

Explanation:

The inversion pair in array A are (20,6),(20,4),(20,5),(6,4) and (6,5), the count of the inversions are 5, hence 5 is returned.

The custom input format for the above case:

5

1 20 6 4 5

(The first line represents the size of the array, the second line represents the elements of the array) Sample Input

A: 13 10 9 6 21 15 14

n: 7

Sample Output

9

The custom input format for the above case:

7

13 10 9 6 21 15 14

Code Solution in C:

```c
#include <stdio.h>

int getInvCount(int arr[], int n)
{
  int inv_count = 0;
  for (int i = 0; i < n - 1; i++)
    for (int j = i + 1; j < n; j++)
      if (arr[i] > arr[j])
        inv_count++;

  return inv_count;
}

int main() {
  int n;
    scanf("%d",&n);
    int a[n];
    for(int i=0;i<n;i++)
    {
        scanf("%d",&a[i]);
       }
    printf("%d\n",getInvCount(a,n));
  return 0;
}
```

Code Solution in C++:

```cpp
#include <bits/stdc++.h>
using namespace std;

int getInvCount(int arr[], int n)
{
  int inv_count = 0;
  for (int i = 0; i < n - 1; i++)
    for (int j = i + 1; j < n; j++)
      if (arr[i] > arr[j])
        inv_count++;

  return inv_count;
}

int main() {
  int n;
    cin>>n;
    int a[n];
    for(int i=0;i<n;i++)
    {
        cin>>a[i];
    }
   cout<< getInvCount(a, n)<<endl;
  return 0;
}
```

Code Solution in Java:

```java
import java.util.*;
import java.lang.*;
import java.io.*;

class InvCount {
  public static void main(String[] args)
  {
     Scanner in = new Scanner(System.in);
        int n = in.nextInt();
        int[] arr = new int[n];
        for (int i = 0; i <n; i++){
            arr[i] = in.nextInt();
            }
         int inv_count = 0;
     for (int i = 0; i < n - 1; i++)
       for (int j = i + 1; j < n; j++)
         if (arr[i] > arr[j])
           inv_count++;
  System.out.println(inv_count);
  }
}
```