Q 25. What will be the output of the following pseudo code?

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

Opps:

A. (•) 21

B. ( ) 19

C. ( ) 29

D. ( ) 22

Reset

Reset

Q 24. What will be the output of the following pseudo code?

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

Ops:

A. ○ 25

B. ○ 5

C. ○ 15

D. ◉ 14

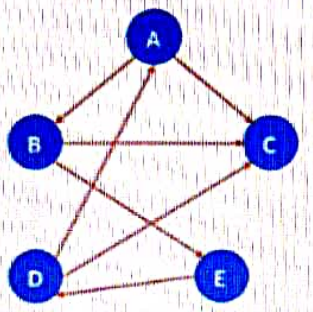
Reset

Q22.

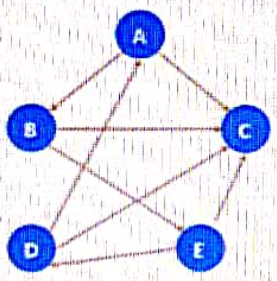
A	0	1	1	0	0
B	0	0	1	1	0
C	0	0	0	0	0
D	1	0	1	0	0
E	0	1	0	1	0

Which of the following is the correct graph represented by the given Adjacency Matrix?

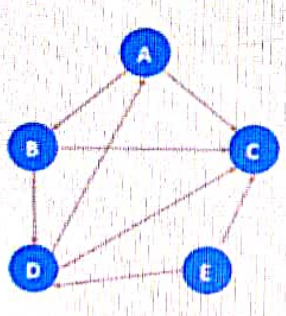
Ops: A. ○



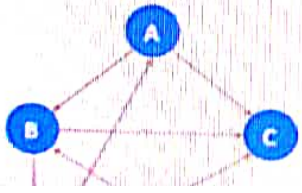
B. ○



C. ○



D. ◉



Q 19. What will be the output of the following pseudocode for a=2, b=1?

```
1.  Integer funn(Integer a, Integer b)
2.      if(b&a>0)
3.          return funn(b-1,a+2)
4.      End if
5.      return b+a
```

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.

Ops:

A. ○ 13

B. ○ -1

C. ○ 5

D. ◉ 4

Reset

Q 20. Find out the array representation of the given max heap, if the value 30 is deleted from it.
43, 31, 30, 4, 6, 7

Ops:

A. ○ 43, 7, 31, 4, 6

B. ○ 43, 31, 7, 6, 4

C. ◉ 43, 31, 7, 4, 6

D. ○ 43, 31, 4, 7, 6

Reset

Q 21.

Q 03. **Which of the following is a divide and conquer algorithm?**

1. Merge sort

2. Quicksort

3. Bubble sort

Ops: A. ○ 1, 2 & 3

B. ○ 2 & 3

C. ◉ 1 & 2

D. ○ 1 & 3

Reset

Q 04. **What will be the output of the following pseudo code for a=7, b=6?**

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

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.

^ 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.

Ops: A. ○ 14

B. ◉ 9

C. ○ 8

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

```
1. Integer  i, m
2. Set m=1
3. Integer a[5] = { 1, 2, 2, 5, 1 }
4. for(each i from 1 to 4 )
5.       a=1
6. End for
7. m=a[0]+a[4]+a[1]
8. Print m
```

Ops:

A. ○ 7

B. ○ 0

C. ○ 13

D. ◉ 3

Reset

Q 13. What will be the output of the following pseudo code?

```
1. Integer j
2. Integer arr= {0, 2, 3, 4}
3. arr[1]=1+arr[2]
4. if((arr[2]+arr[1])+(arr[1]+arr[3])>(arr[2]+arr[1]+arr[3]))
5.     arr[3]=(arr[2]+4)+arr[3]
6. Else
7.     arr[1]=(0+0)+arr[2]
8. End if
9. if((arr[1]+4^2)>(arr[0]^3))
```

Q 23. **What will be the output of the following pseudo code?**

```
1.  Integer p,q,r
2.  Set p=9, q=6, r=5
3.  for(each r from 3 to 4 )
4.      p=(r^3)+r
5.      q=(11+7)+p
6.      p=(5+2)+p
7.      p=(p&3)+r
8.  End for
9.  r=(p+p)^q
10. Print p+q
```

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

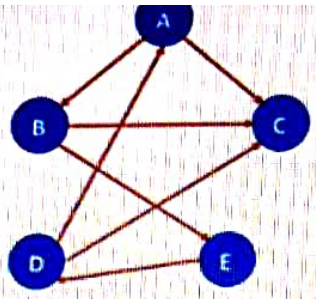
^ is the bitwise exclusive OR operator that compares each bit of its first operand to the corresponding bit of its second operand. If one bit is 0 and the other bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding resu bit is set to 0.

Ops:
- A. (●) 35
- B. ( ) 41
- C. ( ) 30
- D. ( ) 44

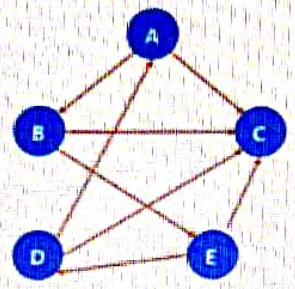
Reset

Q 24. What will be the output of the following pseudo code?

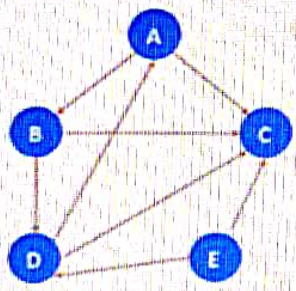
Ops: A.



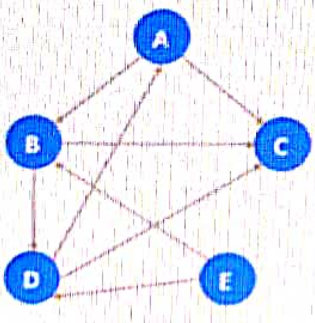
B.



C.



D.



Reset

23 What will be the

Q 13. What will be the output of the following pseudo code?

```
1.  Integer j
2.  Integer arr= {0, 2, 3, 4}
3.  arr[1]=1+arr[2]
4.  if((arr[2]+arr[1])+(arr[1]+arr[3])>(arr[2]+arr[1]+arr[3]))
5.      arr[3]=(arr[2]+4)+arr[3]
6.  Else
7.      arr[1]=(8+6)+arr[2]
8.  End if
9.  if((arr[1]+4^7)>(arr[0]^3))
10.     arr[3]=(arr[2]+4)+arr[3]
11. End if
12. arr[1]=(8+6)+arr[0]
13. Print arr[1]+arr[2]+arr[3]
```

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.

Ops:

A. ○ 41

B. ◉ 35

C. ○ 46

D. ○ 22

Reset

Q 14. What will be the output of the following pseudo code?

Q 09. If we draw a binary search tree by inserting the given numbers from left to right, then what would be the height of the BST?
48, 36, 12, 9, 11

Ops: A. ◉ 4
B. ○ 6
C. ○ 2
D. ○ 3

Reset

Q 10. Find out the number of vertices in a simple graph, if there are 8 edges, 2 vertices of degree 3, and all others of degree 2.

Ops: A. ◉ 7
B. ○ 6
C. ○ 8
D. ○ 9

Reset

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

```
1. Integer p,q,r
2. Set p=9, q=6, r=4
3. r=10^p
4. p=r+r
5. p=p+q
6. p=12&r
7. Print p+q+r
```

01. Pseudo Code

25 que

Q 01. Solve the given postfix expression.

2 3 1 - 5 * +

Ops: A. ○ 10

B. ◉ 12

C. ○ 8

D. ○ 6

Reset

Q 02. In an array with 30 integers how many comparisons are required to find the maximum and minimum number?

Ops: A. ○ 36

B. ○ 43

C. ◉ 28

D. ○ 45

Reset

Q 03. Which of the following is a divide and conquer algorithm?

1. Merge sort
2. Quicksort
3. Bubble sort

Ops: A. ○ 1, 2 & 3

B. ○ 2 & 3

C. ◉ 1 & 2

D. ○ 1 & 3

Reset

Reset

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

```
1. Integer p,q,r
2. Set p=9, q=6, r=4
3. r=10^p
4. p=r+r
5. p=p+q
6. p=12&r
7. 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.

Options:

A. (●) 9

B. ( ) 11

C. ( ) 3

D. ( ) 23

Reset

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

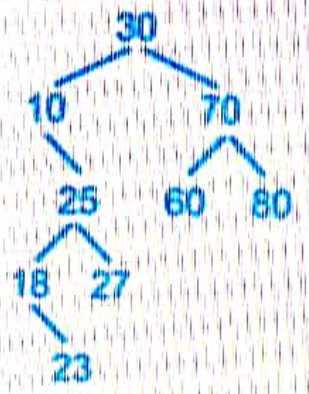
B. ○ 43, 31, 7, 6, 4

C. ◉ 43, 31, 7, 4, 6

D. ○ 43, 31, 4, 7, 6

Reset

Q 21.



Which of the following is the correct Preorder Traversal of the given tree?

Ops: A. ○ 30-10-70-25-60-80-18-27-23

B. ◉ 30-10-25-18-23-27-70-60-80

C. ○ 23-18-27-25-10-60-80-70-30

D. ○ 10-18-23-25-27-30-60-70-80

Reset

Q 22.

	A	B	C	D	E
A	0	1	1	0	0
B	0	0	1	1	0
C	0	0	0	0	0
D	1	0	1	0	0
E	0	1	0	1	0

Which of the following is the correct graph represented by the given Adjacency Matrix?

Ops: A. ○

Q 17. What will be the output of the following pseudo code?

```
1.  Integer p,q,r
2.  Set p=1, q=5, r=8
3.  r=(q+p)+p
4.  if((p+q)<(q+p))
5.      r=(5+7)+q
6.  End if
7.  p=p+p
8.  if((p+q)<(10-p))
9.      q=q+r
10. End if
11. q=p+p
12. Print p+q+r
```

Ops:

A. (●) 13

B. ( ) 17

C. ( ) 20

D. ( ) 12

Reset

Q 18. What will be the output of the following pseudo code?

```
1.  Integer a,b,c
2.  Set a=1, b=5, c=8
3.  if((b+8)<c)
4.      c=(c+b)+b
5.  Else
6.      c=(c+b)+a
```

Q 16. What will be the output of the following pseudocode?

```
1. String str1="stay",str2="okok"
2. Print isPalin(str2+str1)+countConso(str2+str1)
```

Note: countConso(string) returns the number of consonants in the string. Ex- countConso("okay") returns 2. isPalin(string) returns 1 if the string is a palindrame, otherwise returns 0. Ex- isPalin("yyy") returns 1.

Ops: A. ○ 7

B. ○ 3

C. ○ 9

D. ◉ 5

Reset

Q 17. What will be the output of the following pseudo code?

```
1.  Integer p,q,r
2.  Set p=1, q=5, r=8
3.  r=(q+p)+p
4.  if((p+q)<(q+p))
5.      r=(5+7)+q
6.  End if
7.  p=p+p
8.  if((p+q)<(10-p))
9.      q=q+r
10. End if
11. q=p+p
12. Print p+q+r
```

Q 06. What will be the output of the following pseudo code for a=0, b=0?

```
1.
2.  Integer funn(Integer a, Integer b)
3.      if(a<4 && a<3)
4.          a=2+b+a
5.          a=a+3
6.          return funn(a,a)+a
7.      End if
8.      return a+b-1
```

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.

Ops:
A. ○ 24
B. ○ 16
C. ○ 7
D. ◉ 14

Reset

Q 07. Solve the given postfix expression.

3 2 + 5 / 4 +

Ops:
A. ○ 2
B. ◉ 5
C. ○ 3
D. ○ 8

Reset

Q 18. What will be the output of the following pseudo code?

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

Ops:
A. ○ 4
B. ◉ 24
C. ○ 32
D. ○ 35

Reset

Q 19. What will be the output of the following pseudocode for a=2, b=1?

```
1.  Integer funn(Integer a, Integer b)
2.      if(b&a>0)
3.          return funn(b-1,a+2)
4.      End if
5.      return b+a
```

Reset

Q 08. If an integer takes 2 bytes of memory then how many bytes would be allocated to an array int a[4][4]?

Ops:
A. ○ 16
B. ◉ 32
C. ○ 24
D. ○ 8

Reset

Q 09. If we draw a binary search tree by inserting the given numbers from left to right, then what would be the height of the BST?
48, 36, 12, 9, 11

Ops:
A. ◉ 4
B. ○ 6
C. ○ 2
D. ○ 3

Reset

Q 10. Find out the number of vertices in a simple graph, if there are 8 edges, 2 vertices of degree 3, and all others of degree 2.

Ops:
A. ◉ 7
B. ○ 6
C. ○ 8
D. ○ 9

Reset

Q 05. **What will be the output of the following pseudo code for a=1, b=6?**

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

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.

Ops:
A. ○ 35
B. ◉ 27
C. ○ 29
D. ○ 22

Reset

Q 06. What will be the output of the following pseudo code for a=0, b=0?

```
1.
2.  Integer funn(Integer a, Integer b)
3.      if(a<4 && a<3)
4.          a=2+b+a
5.          a=a+3
```

Reset

Q 14. What will be the output of the following pseudo code?

```
1. Integer a,b,c
2. Set a=7, b=2, c=9
3. b=9^b
4. for(each c from 2 to 3 )
5.       b=(a+a)&a
6. End for
7. b=1^a
8. Print a+b
```

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.

Ops:
A. ○ 20
B. ◉ 13
C. ○ 9
D. ○ 25

Reset

Q 15. What will be the output of the following pseudo code?

```
1 Integer a,b,c
```

Reset

Q 15. What will be the output of the following pseudo code?

```
1.  Integer p,q,r
2.  Set p=8, q=4, r=6
3.  q=(p+q)+p
4.  if((p&q)<(7-p))
5.      p=(5+3)+q
6.      q=2^r
7.  End if
8.  r=(p+p)&q
9.  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.

Ops:

A. ○ 40

B. ◉ 44

C. ○ 49

D. ○ 56

Reset

Q 16. What will be the output of the following pseudocode?