

COMPANY SPECIFIC SERIES ACCENTURE – PSEUDOCODE - TRAINER HANDOUT

1. What will be the output of the following pseudocode for a = 3, b = 8?

Integer funn(Integer a, Integer b)

if(b mod a < 2) b = b >> 1return a

End if

if(a mod b < 2) b = b + 12return b

end if

return a + b + 5End function funn()

- 4

a. 4

b. None of these

c. 16

d. 12

Answer: c. 16

2. What will be the value of the following pseudocode?

Integer value, n, num Set value = 1, n = 45 num = num >> 1 num = num + value Print num

a. 44

b. 0

c. 1

d. 12

Answer: c. 1

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

Integer j, m Set m = 1, j = 1Integer $a[3] = \{0,1,4\}$ if $(a[m-1] \parallel (a[-1] \&\& a[1]))$ a[j] = 5End if m = m + a[j]Print m a. 3 b. 4

c. 6

d. 2

Answer: c. 6





4. What will be the value of the following pseudocode for x = 27?

Integer fun(Integer x) if(x > 9) fun(x/9) Print x - 1 fun(x/3)

else

print x - 2

end if

end function fun()

a. 1 26 7

b. 26 7 1

c. 982

d. 7801

Answer: a. 1 26 7

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

Integer x,y

for(each x from 1 to 11)

x = x + 2

end for

Print x

a. 11

b. 10

c. 12

d. 13

Answer: d. 13

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

Input f = 6, g = 9 and set sum = 0 Integer n if (g > f)for (n = f; n < g; n = n + 1)sum = sum + n End for loop else

Print Error Message

Print sum

a. 6

b. 21

c. 15

d. 9

Answer: b. 21

7. What will be the value of the following pseudocode?

Integer j, m Set m = 1, j = 1Integer $a[3] = \{0, 1, 0\}$ a[0] = a[0] + a[1] a[1] = a[1] + a[2]a[2] = a[2] + a[0]





```
a[j] = 5 End if m = m = a[j] Print m a. 3 \qquad b. 2 \qquad c. 6 \qquad d. 4
```

Answer: c. 6

8. Which of the following options is correct for the given code for n = 39 and r = 13?

```
Integer f1(Integer n, Integer r) if(n > 0) return (n - r + f1(n/3, 13)) else return 0 end if End function f1 () a. 3 b. 0 c. 5 d. 1
```

Answer: c. 5

9. What will be the value of the following pseudocode for k=150?

Answer: b. 150 152 154 154 152 150

10. Which of the following is the most appropriate option for the output of the given pseudocode for n=25?

```
Integer foo(Integer n)
if(n EQUALS 1)
return 1
else if((n MOD 2) EQUALS 0)
return n*2
else
return foo(n - 10/3)
end if
```





End function foo()
a. 20 b. 44 c. 15 d. 25

Answer: b. 44

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

```
Integer a, n, b Set \ a=0, \ n=0, \ b for(each \ n \ from \ 0 \ to \ 4) n=n+1 if(n \ EQUALS \ 3) Print \ "Hello \ World" end \ if Jump \ out \ of \ the \ loop End \ for Print \ n a. \ 2 b. \ 1 c. \ 3 d. \ Hello \ World
```

Answer: b. 1

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

```
Integer a[5], b[5], c[5], k, l

Set a[5] = \{5, 9, 7, 3, 1\}

Set b[5] = \{2, 4, 6, 8, 10\}

for(each k from 0 to 4)

c[k] = a[k] - b[k]

end for

for(each 1 from 0 to 4)

Print c[1]

end for

a. 7 13 13 11 11 b. 3 5 1 -5 -9 c. -3 -5 -1 5 9 d. None
```

Answer: b. 3 5 1 -5 -9

13. How many times "A" will be printed in the following pseudocode?





```
14. What will be the output of the following pseudocode for a = 3?
void fun(int a)
if(a<1)
       return
else
       print a
       fun(a-2)
       print a
       return
End function fun()
a. 2 1 1 2
                       b. 12
                                               c. 2 1 0
                                                                       d. 3 1 1 3
Answer: d. 3 1 1 3
15. What will be the output of the following pseudocode?
Integer p, q r
Set q = 13
for(each p from 1 to 4)
       r = q \mod p
       p = p + 5
       q = p + r
end for
r = q/5
Print q, r
a. 64
                       b. 13
                                               c. 72
                                                                       d. 61
Answer: d. 61
16. What will be the output of the following pseudocode?
Integer x
Set x = 259
if(x EQUALS 0)
       Print "0"
otherwise if(x MOD 9 EQUALS 0)
       Print "9"
otherwise
       Print x MOD 9
end if
a. 8
                       b. 16
                                               c. 7
                                                                       d. None
Answer: c. 7
```

```
Integer a[5], b[5], c[5], k, l
Set a[5] = \{1, 2, 3, 4, 5\}
```





```
Set b = [5] = \{6, 7, 8, 9, 10\}

for(each k from 0 to 4)

c[k] = a[k] + b[k]

end for

Print c[1]

end for

a. 11 12 13 14 15 b. None c. 7 8 9 10 11 d. 7 9 11 13 15
```

Answer: d. 7 9 11 13 15

18. Which of the following output is correc for the given code if n = 64?

```
Integer large(Intger n)  if(n <= 1)   return \ 1   end \ if   if(n \ mod \ 4 \ EQUALS \ 0)   return \ large(n/4)   end \ if   return \ large(n/4) + large(n/4 * 1)   End \ function \ large()   a. \ 1 \qquad b. \ 0 \qquad c. \ 6 \qquad d. \ 4
```

Answer: a. 1

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

```
Integer j, m

Set m = 1, j = 1

Integer a[5] = \{6, 4, 3, 1, 4\}

if(a[m-1])

a[j] = a[j] + 5

End if

m = m + a[j]

Print m

a. 10 b. 9 c. 8
```

Answer: a. 10

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

```
Integer j, m

Set m = 4

Integer a[4] = {4, 13, 2, 1}

for {each j from 0 to 3}

if(j > 1)

m = m + a[j]
```



d. 4



```
End \ if \\ if (j>2) \\ Continue \\ End \ if \\ m=m+1 \\ End \ for \\ Print \ m \\ a.\ 8 \qquad b.\ 10 \qquad c.\ 1 \qquad d.\ 4
```

Answer: b. 10

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

```
Integer a, b, count, count1
Set a = 1, b = 1
while(a \leq 5)
        b = 1
        while(b \le 5)
                b = b + 1
                count1 = count1 + 1
        end while
        a = a + 1
        count = count + 1
end while
Print count, count 1
                                                                           d. 5 5
a. 25 5
                         b. 24 5
                                                  c. 5 25
```

Answer: c. 5 25

22. What will be the output of the following pseudocode a=2, b=2?

```
Integer funn(Integer a, Integer b)  if(a \& b > 0)   return 1 + funn(a - 1, b) + funn(a, b - 1)   End if   return 0   End function funn()   a. 0 \qquad b. 2 \qquad c. 4 \qquad d. 9
```

Answer: a. 0

```
Integer a, b

Set a = 12, b = 25

a = (a + b) \text{ MOD } 2

b = b = a

a = a + b - 13
```





Print a, b

a. -11 1

b. -12 00

c. 11 22

d. 37 24

Answer: a. -11 1

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

Integer i

Set i = 0

Start : i = 12

Print i

if(i < 60)

goto Start

else

Print i + 1

end if

a. 0 12 0 12 13

b. 12 24 36 48 60 61

c. 12 infinite times

d. 0 12 24 25

Answer: c. 12 infinite times

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

Integer y1, y2

Set y1 = 8, y2 = 8

do

print y1/y2

while(y1/y2)

end do while

a. It will print 1 infinite time

b. 8

c. 0

d. 1

Answer: a. It will print 1 infinite time

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

Integer a, b, c

Set b = 10, a = 1

for(each c from 1 to 3)

$$a = (a + c) * c$$

b = b - c

End for

if (0 && 1 && (2^3))

b = a - 1

a = a - 1

a = b + 1

a = a >> 1

b = b >> a

Else

a = b + 1





```
b = a - 1
a = a - 1
End if
Print a + b
a. 7 \qquad b. 3 \qquad c. 4 \qquad d. 8
```

Answer: d. 8

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

```
Integer a, b, c

Set a = 4, b = 4, c = 4

if(a & (b ^ b) & c)

a = a >> 1

End if

Print a + b + c

a. 16 b. 24 c. 8 d. 12
```

Answer: d. 12

28. What will be the output of the following pseudocode for a = 10, b = 11?

Integer funn(Integer a, Integer b) if(0) $return\ a - b - funn(-7, -1)$ $End\ if$ a = a + a + a + a $return\ a$ $End\ function\ funn(\)$ $a.\ 40$ $b.\ 30$ $c.\ 44$ $d.\ 0$

Answer: a. 40

29. What will be the output of the following pseudocode for a = 5, b = 1?

Integer funn(Integer a, Integer b) $if((b+a \parallel a-b) \&\& (b>a) \&\& 1)$ a=a+b+b-2 $return \ 3-a$ Else $return \ a-b+1$ $End \ if$ $return \ a+b$ $End \ function \ fun(\)$

a. 0 b. 5 c. 16 d. 11

Answer: b. 5





30. What will be the output of the following pseudocode for a = 5, b = 3?

Integer funn(Integer a, Integer b)

$$if((b \bmod a > a \bmod b) \parallel (a \wedge b > a))$$

$$a = a \wedge b$$

$$if(a)$$

$$b = 1$$

$$return 4^5 \wedge 6$$

$$End if$$

$$return 1^2 \wedge 3$$

$$End if$$

return a+b

End function funn ()

a. 7

b. 9

c. 16

d. 3

Answer: a. 7

31. What will be the output of the following pseudocode for a = 5, b = 1?

Integer funn(Integer a, Integer b)

$$if((b \bmod a \ \&\& \ a \bmod b) \parallel (a \land b > a))$$

$$a = a \land b$$
 Else

List

return a - b

End if return a + b

End function funn()

a. **-**9

b. 5

c. 6

d. 21

Answer: b. 5

32. What will be the output of the following pseudocode a = 1, b = 3?

Integer funn(Integer a, Integer b)

$$if(a\&1 \&\&1) \\ return \ funn(a-1, \ a+a) + funn(a-1, \ b+b) \\ Else \\ return \ b^a$$

End if

a. 8

b. 26

c. 1

d. 15

Answer: a. 8

33. What will be the output of the following pseudocode for a = 4, b = 8?

Integer funn(Integer a, Integer b)

$$b = b \wedge a$$

End if





```
if(b > a)
a = a \wedge b
End if
return a + b
End function funn ()
a. 35 \qquad b. 20 \qquad c. 14 \qquad d. 25
```

Answer: b. 20

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

Answer: b. C

35. What will be the output of the following pseudocode for input 7?

Read the value of N. Set m=1, T=0 if (M>N) // line 3 Go to line no. 9 else $T=T+m \\ m=m+1 \\ Go to line no. 3 \\ Print T // line 9$ a. 76 b. 32 c. 56 d. 28

Answer: d. 28

```
Integer a, b

Set b = 2

for(each a from 1 to 6)

a = a + 2

b = b + a - 4
```





end for Print b

a. 3

b. 4

c. 1

d. 8

Answer: a. 3

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

Integer value, n

Set value = 1, n = 45

while(value less than equal to n)

value = value << 1

end loop

Print value

a. 64

b. 32

c. None

d. 45

Answer: a. 64

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

Integer j, m

Set m = 1

Integer $a[4] = \{1, 0, 1, 1\}$

for(each j from 0 to 1)

if(j > 2)

Continue

Else

if(a[j])

m = a[j]

End if

End if

End for

Print m

a. 5

b. 8

c. 1

d. 7

Answer: c. 1

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

Integer a, b, c

Set
$$a = 4$$
, $b = 0$, $c = 0$

if(a)

$$a = a << 1$$

End if

$$b = b \land (c >> 1)$$

Print a + b + c

a. 11

b. 5

c. 8

d. 18





Answer: c. 8

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

Integer a, b, c

Set
$$a = 4$$
, $b = 2$, $c = 3$

$$c = 1$$

$$a = c ^ 1$$

Else

$$c = 1$$

$$b = b \wedge 3$$

End if

Print a + b + c

a. 4

b. -1

c. 3

d. 23

Answer: c. 3

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

Integer a, b, c

Set
$$a = 5$$
, $b = 5$, $c = 9$

if((b && (c >> 1))
$$\parallel$$
 (b && (c << 1)))

$$a = a^{1}$$

End if

Print a + b + c

a. 18

b. 27

c. 14

d. 19

Answer: a. 18

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

Integer a, b, c

Set
$$a = 4$$
, $b = 1$, $c = 2$

$$c = a + a$$

$$a = c + c$$

Else

$$c = b + b$$

$$b = c + c$$

End if

Print a + b + c

a. 22

b. 31

c. 34

d. 25

Answer: d. 25





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

Integer a, b, c Set a = 1, b = 2for(each c from 4 to 6) $a = a \wedge b$ if(c - a < b + a)b = 2a = 1Jump out of the loop End if $a = a \wedge c$ End for Print a + ba. -2 b. 8 d. 16 c. 3

Answer: c. 3

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

Answer: c. 31

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

Integer a, b, c Set a = 4, b = 1, c = 2 $if(b \land (c \& a) \&\& a \land (c \& b))$ c = a + a a = c + c Else c = b + b b = c + c End if Print a + b + c a. 22 b. 31 c. 34 d. 25





Answer: d. 25

```
46. What will be the output of the following pseudocode for a = 6, b = 7?
```

```
Integer funn(Integer a, Integer b)
        if(a < b \&\& a > 0)
                 a = a + 10
                 if(a > 0 \&\& b > 0)
                          a = a \wedge b
                 End if
                 a = a >> 1
        End if
        return a + b
```

End function funn()

a. 27

b. 14

c. 18

d. 20

Answer: c. 18

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

Integer a, b Set b = 8Set a = bPrint a // line 4 a = a + b - 10if(a > 0)Go to line 4

a. 8 8 8 0

End if

b. 6420

c. 8 6 4 2

d. 8 4 2

Answer: c. 8 6 4 2

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

Integer a, b Set a = 20, b = 4while $(a \ge b)$ a = a >> 1end while Print a a. 2

b. 3

c. 4

d. 5

Answer: a. 2





49. What will be the value of s if n = 127?

```
Read n
i=0,s=0
Function Sample(int n)
while (n>0)
        r = n\%10
        p = 8^i
        s = s + p * r
i++
n = n/10
End While
return s;
End Function
a. 27
                        b. 187
                                                c. 87
                                                                         d. 120
```

Answer: c. 87

Solution: The following code is converting an octal number into its decimal representation. Here we are treating 127 as an octal input and converting it into its decimal representation that is 87.

50. What will be the value of s if N=20?

```
Read N
```

```
Function sample(N)

s = 0, f = 1, i = 1;

Do Until i \le N

f = f * i;

s = s + (i / f);

i = i + 1

End Do

return(s);

End Function

a. 666667 b. infinite loop
```

c. 708333 d. 716667

Answer: b. infinite loop

Solution: This code will never end because the value of n is never been updated.

```
1 Integer x, y
2 Set x = 4, y = 7
3 X = x + y
4 Y = x - y
5 X = x + 4
6 Print x, y
```





- A. 15, 4
- B. 4, 7
- C. 11, 4
- D. None of the mentioned options

Answer: B

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

Note- Continue: When a continue statement is encountered inside a loop, control jumps to the beginning of the loop for next iteration, skipping the execution of statements inside the body of the loop for the current iteration.

 $^{\land}$ 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. If(x) gets executed if the value inside if(), i.e., x is not zero]

- A. 8
- B. 9
- C. 10
- D. 11

Answer: A





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

- A. 7
- B. 9
- C. 2
- D. 6

Answer: D

54. What will be the output of the following pseudocode for a = 4, b = 6?

```
1 Integer funn (Integer a, Integer b)
2 a = a << (a-2)
3 b = b >> (b-5)
4 a = a + 1
5 b = b + 1
6 Return a + b
7 End function funn()
```

[Note>> bitwise right shift operator, it takes two numbers, right shifts the bits of the first operand, the second operand decides the number of places to shift.

<< is left shift operator, it takes two numbers, left shifts the bits of the first operand, the second operand decides the number of places to shift]

- A. 21
- B. 33
- C. 19
- D. 22

Answer: A

55. What will be the output of the following pseudocode for a = 3, b = 0?

```
1 Integer funn (Integer a, Integer b)
2    if(b)
3     return 1
4    Else
5     return funn (a+2, b+1)
6    End if
7 End funn()
```

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

- A. 4
- B. 14





C. -18 D. 1

Answer: D

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

[Note - >>-Bitwise right shift operator, it takes two numbers, right shifts the bits of the first operand, the second operand decides the number of places to shift.

&: bitwise AND - The bitwise AND operator (&) compares each bit of the first operand to the corresponding bit of the second operand. If both bits are1, 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 bit is set to 0.

A. 13

B. 0

C. 20

D. 45

Answer: C





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

- & Bitwise AND operator, it takes two numbers as operands and does AND on every bit of two numbers. The result of AND is 1 only if both bits are 1.
- ^ 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. 13
 - B. 0
 - C. 23
 - D. 56

Answer: C

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

```
1 Integer result and set num1=5, num2=7, num3=6 result
2 if(num1 > num2)
3    if(num1 > num3)
4     result = num1
5    else
6     result = num3
7 else
8    if(num2 > num3)
9     result = num2
10    else
11    result = num3
12 Print result
```

- A. 7
- B. 5
- C. None of the mentioned options
- D. 4

Answer: A

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





[Note: || : Logical OR- The logical OR operator (||) returns the boolean value TRUE (or 1) if either or both operands is TRUE and returns FALSE(or 0) otherwise]

- A. 37
- B. 18
- C. 31
- D. 32

Answer: B

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

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

[Note- Continue: When a continue statement is encountered inside a loop, control jumps to the beginning of the loop for next iteration, skipping the execution of statements inside the body of the loop for the current iteration.

||: Logical OR - The logical OR operator (||) returns the boolean value TRUE (or 1) if either or both operands is TRUE and returns FALSE(or 0) otherwise]

- A. 23
- B. 45
- C. 56
- D. 21

Answer: D

61. What will be the output of the following pseudocode for a = 5, b = 4?

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





- A. 20
- B. 23
- C. 28
- D. 42

Answer: B

62. What will be the output of the following pseudocode for a = 2, b = 5?

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

- A. 7
- B. 15
- C. 5
- D. 8

Answer: A

63. What will be the output of the following pseudocode for a = 99, b = 2?

- A. 2
- B. 8
- C. 6
- D. 3

Answer: A





64. What will be the output of the following pseudocode for a = 4, b = 9?

```
1 Integer funn ( Integer a, Integer b)
2     if((a & b) & (b ^ a) > 0)
3          a = 0
4     End if
5     Return a + b
6     End function funn()
```

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.

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

- A. 17
- B. 4
- C. 32
- D. 13

Answer: B

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

- A. 246
- B. 0246
- C. 6420
- D. 666

Answer: D





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

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 o.

 $^{\circ}$ 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 other bit is 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 returns FALSE(or 0) otherwise]

- A. 10
- B. 45
- C. 5
- D. 7

Answer: 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 exculsive 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

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

- A. 4
- B. 5
- C. 6
- D. 7

Answer: C

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

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

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

- A. 1
- B. 2
- C. 3
- D. 4

Answer: C

