Placement Classes

Telegram - https://t.me/placementclasses

Capgemini Pseudo Code MCQs

Capgemini Pseudo Code MCQs - Syllabus

The syllabus for Capgemini pseudo code MCQs section is as given below. Questions will be mostly on these topics only.

Programming Logic Based MCQs (Pseudocode)

C

C++

Data Structures

OOPS

Capgemini Pseudo Code MCQs (previously asked)

Question 1:- 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%l0

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 :- Option C

Question 2 :- What will be the output of the following pseudocode?

Integer n

for (n = 3; n != 0; n--)

Print n

n = n-1

end for

a) 3 1

b) 3 2 1

c) 3

d) Infinite Loop

Answer :- Option D

Question 3:- What will be the output of the following pseudocode?

For input a = 8 & b = 9.

```
Function(input a, input b)
If(a < b)
return function(b, a)
elseif(b != 0)
return (a + function(a,b-1))
else
return 0
```

a) 56

b) 78

c) 72

d) 68

Answer :- Option C

Question 4:- What will be the value of even_counter if number = 2630?

```
Read number
Function divisible(number)
even_counter = 0, num_remainder = number;
while (num_remainder)
digit = num_remainder % 10;
if digit != 0 AND number % digit == 0
even_counter= even_counter+1
End If
```

```
num_remainder= num_remainder / 10;
End While
return even_counter;
```

a) 3

b) 4

c) 2

d) 1

Answer :- Option D

Question 5:- What will be the value of t if a =56 ,b = 876?

```
Read a,b
Function mul(a, b)
t = 0
while (b != 0)
t = t + a
b=b-1
End While
return t;
End Function
```

a) 490563

b) 49056

c) 490561

d) None of the mentioned

Answer :- Option B

Question 6:- Code to sort given array in ascending order:

Read size

Read a[1],a[2],a[size]

i=0

While(i<size)

j=i+1

While(j<size)

If a[i] < a[j] then

t= a[i];

a[i] = a[j];

a[j] = t;

End If

j=j+1

End While

i=i+1

End While

i=0

While (i<size)

print a[i]

i=i+1

End While

Find out the wrong statement in the above pseudocode

a) Line 4

b) Line 6

c) Line 7

d) No Error

Answer :- Option C

Question 7:- What is the time complexity of searching for an element in a circular linked list?

a) O(n)

b) O(nlogn)

c) O(1)

d) None of the mentioned

Answer :- Option A

Question 8:- In the worst case, the number of comparisons needed to search a singly linked list of length n for a given element is

a) log 2 n

b) n^2

c) log 2 n 1

d) n

Answer: Option D

Question 9:- Which of the following will give the best performance?

a) O(n)

b) O(n!)

c) O(n log n)

d) O(n^C)

Answer :- Option A

Question 10:- How many times the following loop be executed?

```
{
ch = b;
while(ch >= a && ch <= z)
ch++;
}
```

a) 0

b) 25

c) 26

d) 1

Answer :- B

Question 11:- Consider the following piece of code.What will be the space required for this code?

```
int sum(int A[], int n)
{
int sum = 0, i;
for(i = 0; i < n; i++)
sum = sum + A[i];
return sum;
}
// sizeof(int) = 2 bytes
```

a) 2n + 8

b) 2n + 4

c) 2n + 2

d) 2n

Answer :- A

Question 12:- What will be the output of the following pseudo code?

For input a=8 & b=9.

```
Function(input a,input b)
If(a<b)
return function(b,a)
elseif(b!=0)
return (a+function(a,b-1))
```

else

return 0

a) 56

b) 88

c) 72

d) 65

Answer :- C

Question 13:- What will be the output of the following pseudo code?

Input m=9,n=6

m=m+1

N=n-1

m=m+n

if (m>n)

print m

else

print n

a) 6

b) 5

c) 10

d) 15

Answer :- D

Question 14:- What will be the output of the following pseudo code?

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) 21

b) 15

c) 9

d) 6

Answer :- A

Question 15:- Consider a hash table with 9 slots. The hash function is h(k) = k mod 9. The collisions are resolved by chaining. The following 9 keys are inserted in the order: 5, 28, 19, 15, 20, 33, 12, 17, 10. The maximum, minimum, and average chain lengths in the hash table, respectively, are

a) 3, 0, and 1

b) 3, 3, and 3

c) 4, 0, and 1

d) 3, 0, and 2

Answer :- A

Question 16:- You have an array of n elements. Suppose you implement a quick sort by always choosing the central element of the array as the pivot. Then the tightest upper bound for the worst case performance is:

a) O(n2)

b) O(nLogn)

c) ?(nLogn)

d) O(n3)

Answer :- A

Question 17:- Let G be a graph with n vertices and m edges. What is the tightest upper bound on the running time on Depth First Search of G? Assume that the

graph is represented using adjacency matrix.

a)O(n)

b)O(m+n)

c)O(n2)

d)O(mn)

Answer :- C

Question 18:- Let P be a Quick Sort Program to sort numbers in ascending order using the first element as a pivot. Let t1 and t2 be the number of comparisons made by P for the inputs {1, 2, 3, 4, 5} and {4, 1, 5, 3, 2} respectively. Which one of the following holds?

a)t1 = 5

b)t1 < t2

c)t1 > t2

d)t1 = t2

Answer :- C

Question 19:- What does the following piece of code do?

```
public void func(Tree root)
{
func(root.left());
func(root.right());
System.out.println(root.data());
}
```

a)Preorder traversal

b)Inorder traversal

c) Postorder traversal

d)Level order traversal

Answer :- C

Question 20:- How will you find the minimum element in a binary search tree?

a) public void min(Tree root)

{

while(root.left() != null)

{

root = root.left();

}

System.out.println(root.data());

}

b) public void min(Tree root)

{

while(root != null)

{

root = root.left();

}

System.out.println(root.data());

}

c) public void min(Tree root)

{

while(root.right() != null)

{

root = root.right();

}

```
System.out.println(root.data());
}
```

d) public void min(Tree root)

```
{
while(root != null)
{
root = root.right();
}
System.out.println(root.data());
}
```

Answer :- A