X

Unit 3 - Prerequisite

Assignment - 0

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment. **Due on 2019-02-04, 23:59 IST.**

********** NOTE **********

Please note that the questions with pseudocode are not specific to any particular language and are applicable to any standard programming languages.

This assignment does not count towards the final marks. It is just a set of practice problems to give you an idea about what you can expect from the course, and which topics can help you follow up the course smoothly.

1) Choose the correct output for the following snippet. Please note that:Here the execution of the code starts from ‘main’ and the ‘print’ function prints the output to the console.: ***1 point***

```
define recurr(i)
      if i==1
            return 1
      else
            return i + recurr(i-1)
      endif
end define
define main
      for i=1 to 5
            print recurr(i)
      endfor
end main
```

1, 2, 3, 4, 5

Accepted Answers:
1, 3, 6, 10, 15

2) Which of the followings is not a peer-to-peer distributed system (search Google with the term if you are not familiar with it)? **1 point**

- WebTorrent
- HTTP
- I2P

No, the answer is incorrect.
Score: 0

Accepted Answers:
HTTP

3) Which of the following can define the concept of *distributed shared memory*, in the context of distributed systems? **1 point**

- Combination (logical) of virtual memories of the individual nodes
- Combination (logical) of physical memories of the individual nodes
- Combination (logical) of secondary memories of the individual nodes
- All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Combination (logical) of physical memories of the individual nodes

4) Choose the correct output for the following snippet. Please note that:Here the execution of the code starts from 'main' and the 'print' function prints the output to the console. Consider array indices to start from 1: **1 point**

```
define trip(arr)
      sum=5
      for i=1 to 3
            sum=sum+arr[i]
      endfor
      return sum
end define
define main
      arr={5,2,3,4,1}
      print trip(arr)
end main
```

- 25
- 20
- 15
- 10

No, the answer is incorrect.
Score: 0

Accepted Answers:
15

5) Which of the following properties define the capability of a system to adapt with the increase in the service load? **1 point**

- Location Transparency
- Isolation
- Scalability
- Atomicity

No, the answer is incorrect.
Score: 0

Accepted Answers:
Scalability

6) Consider the following snippet. Find the accessibility of the variables (scope of the variables) in Seg1 and Seg2: **1 point**

```
Method A()
        Integer x,y
        Method B()
                Real x,z
                Seg1
        End B
        Method C()
                Integer i
                Seg2
        End C
End A
```

- x of B, z and y in Seg1 and x of A, i and y in Seg2
- x of A, y, x of B and z in Seg1 and x of B, y and i in Seg2
- x of B, y and z in Seg1 and x of B, i and z in Seg2
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
x of B, z and y in Seg1 and x of A, i and y in Seg2

7) Which of the following is the main principle behind the property of isolation in multi-process execution over an operating system? **1 point**

- Either complete execution or no execution related to a process
- All processes will be executed as if it is the only process in the system
- A process can enter the critical section when it has obtained the response from all other processes
- The system remains consistent before and after executing the process

No, the answer is incorrect.
Score: 0

Accepted Answers:
All processes will be executed as if it is the only process in the system

8) Consider the following program where x, y and z are integer values. The final output of MainFunc(4,8,32) is: **1 point**

```
Func(x, y){
      ans = 0
      While (x > 0)
            If (x & 1)
                  ans = ans + y
            x = x >> 1
            y = y << 1
      return ans
}

MainFunc(x,y,z){
      Rslt = Func(y,z)
      Rslt = Func(x,Rslt)
      Print Rslt
}
```

- 16
- 1024
- 1
- 44

No, the answer is incorrect.
Score: 0

Accepted Answers:
1024

9) Consider the following program where a and b are integer values. ***1 point***
How many @ will be printed by the call Func(128,256)?

```
Func(a,b){
      If(a!=1){
            If(b==1){
                  Func(a,256)
                  a=a-1
            }
            Else{
                  Print "@" b times
                  Func(a,b/2)
            }
      }
}
```

- 1016
- 64770
- 32258
- Infinite

No, the answer is incorrect.
Score: 0

Accepted Answers:
Infinite

10) The standard of protocol suite used for packet-switched wide area network communication is (Google the terms if you are not familiar with it): **1 point**

- X.25
- X.301
- X.409
- X.509

No, the answer is incorrect.
Score: 0

Accepted Answers:
X.25

End