AJ-126

April-2023

M.Sc. (CA&IT), Sem.-IV

Open-Source Technologies

Time : 2:30 Hours]   **[Max. Marks : 70**

1.   Answer the followings : (ANY **TWO**)   **14**

   (1)   What is Open Source Software ? Explain the difference between commercial software and open source software.

   (2)   Define Application Programming Interface with diagram.

   (3)   Explain Open Source Development Model with diagram.

2.   (A)   Answer the followings :   **10**

      (1)   What is Vim editor ? Explain different modes and commands of the editor.

      (2)   Explain File System Management with figure.

   (B)   What is Environment Variable ? Also give an example to set Environment variable.   **4**

3.   (A)   What is Python ? And explain its features.   **7**

                          OR

      What is Python ? And explain its applications.   **7**

   (B)   What is the difference between List and Tuple data structure ? Also define the functions of List.   **7**

4.   Answer the followings : (ANY **TWO**)   **14**

   (1)   What is exception ? Explain how to handle it in Python (with proper example).

   (2)   Define different modes to open a file in Python.

   (3)   What is Inheritance ? Explain types of Inheritance.

   (4)   What is containership ? Also explain the difference between containership and inheritance.

5. (A) Explain followings : (ANY **TWO**)   **8**
   (1) Class Variable and Class Method.
   (2) Any four methods of Math module.
   (3) Variable length arguments and Keyword argument.

   (B) What will be the output of the following codes ? (ANY **THREE**)   **6**
   (1) def dis():
   ```
   print("a");print("b");return;print("c");print("d")
   ```
   dis()

   (2) def f():
   ```
       s = "Hello World"
       print(s)
       s = "Welcome to Python Programming."
   f()
   print(s)
   ```

   (3) def f():
   ```
       global var
       print(varr)
       var = 10
       print(var)
   var = 100
   print(var)
   f()
   ```

   (4) num = –1
   ```
   if(num + 1):
       if(num*2) >= 0:
           print("you win")
       else:
           print("try again")
   ```

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