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BRAINWARE UNIVERSITY

Term End Examination 2024-2025
Programme – B.Tech.(RA)-2021
Course Name – Programming for IoT
Course Code - OEC-ECR802B
(Semester VIII)

Full Marks : 60 **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question) 1 x 15=15

1. *Choose the correct alternative from the following :*

(i) Select which method I should use to convert String "welcome to the beautiful world of python" to "Welcome To The Beautiful World Of Python"

a) capitalize() b) title()
c) isupper() d) None of the mentioned

(ii) Predict the output of the following code

```
aList = [15, 11, 5, 12]

print(aList[::-2])
```

a) [15, 11, 5] b) [12, 11]
c) [5, 12] d) Error occurs

(iii) Identify the correct function to get the character from ASCII number system.

a) ascii(number) b) char(number)
c) chr(number) d) None of the mentioned

(iv) Identify the correct function to get the ASCII of a character

a) char('char') b) ord('char')
c) ascii('char') d) None of the mentioned

(v) Select the number of times the loop will run i=2 while(i>0): i=i-1

a) 2 b) 3
c) 1 d) 0

(vi) Identify the valid Python if statement

a) if a>=2 : b) if (a >= 2)
c) if (a => 22) d) if a >= 22

(vii) Define the purpose of an if-else statement in Python.

a) To perform iteration b) To execute different code blocks based on conditions

c) To define functions d) To handle exceptions

(viii) Describe the process of a while loop functions in Python.

a) Runs indefinitely b) Executes a block of code while a condition is true

c) Runs a fixed number of times d) Executes only once

(ix) Enumerate the types of loops in Python.

a) If, else, elif b) While, for

c) If, for d) Loop, elif

(x) Write the output of the following Python code.

```
class stud:
'Base class for all students'
def __init__(self, roll_no, grade):
self.roll_no = roll_no
self.grade = grade
def display (self):
print("Roll no : ", self.roll_no, ", Grade: ", self.grade)
print(student.__doc__)
```

a) Exception is thrown b) __main__

c) Nothing is displayed d) Base class for all students

(xi) Write the output of the following Python code.

```
class stud:
def __init__(self, roll_no, grade):
self.roll_no = roll_no
self.grade = grade
def display (self):
print("Roll no : ", self.roll_no, ", Grade: ", self.grade)
stud1 = stud(34, 'S')
stud1.age=7
print(hasattr(stud1, 'age'))
```

a) Error as age isn't defined b) True

c) False d) 7

(xii) Express the output of the following Python code.

```
class A():
def disp(self):
print("A disp()")
class B(A):
pass
obj = B()
obj.disp()
```

a) Invalid syntax for inheritance b) Error because when object is created, argument must be passed

c) Nothing is printed d) A disp()

(xiii) Write the output of the following Python code.

```
class A:
def one(self):
return self.two()
def two(self):
return 'A'
class B(A):
def two(self):
return 'B'
obj1=A()
```

```
obj2=B()
print(obj1.two(),obj2.two())
```


a) A A
b) A B
c) B B
d) An exception is thrown

(xiv) Select the purpose of the following Python statement do x, y = 5, 10

a) Creates two variables, x and y, with values 5 and 10, respectively
b) Compares the values of x and y and returns True if they are equal
c) Adds the values of x and y and stores the result in a new variable
d) Raises a syntax error because of the comma

(xv) Select the correct term for a function inside a class.

a) Method
b) Attribute
c) Variable
d) Object

Group-B

(Short Answer Type Questions) 3 x 5=15

2. Classify Network Management Tools. (3)
3. Describe the services of RIM. (3)
4. Explain the steps to set up the Python path in different operating systems. (3)
5. Define Global Value Chain. (3)

6. Classify different types of exceptions in Python and conclude how exception handling improves program reliability. (3)

OR

Plan an efficient file handling strategy and appraise the importance of handling files properly in Python. (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Explain the different types of errors in Python with examples. (5)
8. Define we install a web server on Raspberry Pi using a shell. (5)
9. Compare and contrast if-else and if statements in Python. (5)

10. Describe built-in datatypes of python. (5)
11. Demonstrate a Python program to implement recursion for factorial of a number that demonstrates the user defined function and return statement. (5)
12. Write a Python program to check whether a number is prime or not without using function. (5)

OR

Write a Python program to print 24 hours of day with suitable suffixes like AM, PM, Noon and Midnight. (5)

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