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Question Paper Code: 50283

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

ONE CREDIT COURSE

Computer Science and Engineering

15UCS863 - PYTHON PROGRAMMING

(Regulation 2015)

Duration: One hour

Maximum: 50 Marks

Answer ALL Questions

PART A - (20 x 1 = 20 Marks)

- To inherit a class from a base class, the syntax in Python is
 - class Derived(Base)
 - class Derived::Base
 - class Derived:Base
 - class Derived extends Base
- The method to overload + operator in Python is
 - def operator+(self, object)
 - def +(self, object)
 - def __+__(self, object)
 - def __add__(self, object)
- What is the value of times displayed?
 - ['a', 'b', 'c', 'd']
 - ['ab']
 - ['cd']
 - ['abcd']
- The keyword _____ is required to define a class.
 - def
 - return
 - class
 - All the above
- Which of the following is not a complex number?
 - $k = 2 + 3j$
 - $k = \text{complex}(2, 3)$
 - $k = 2 + 3i$
 - $k = 2 + 3J$
- _____ is used to create an object.
 - A constructor
 - A class
 - A value-returning method
 - none of these

7. Which of the following statements are true?
- (a) Each object has a unique id
 - (b) Objects of the same type have the same id
 - (c) Objects of the same kind have the same type
 - (d) A variable that holds a value is actually a reference to an object for the value
8. _____ represents an entity in the real world that can be distinctly identified.
- (a) A class
 - (b) An object
 - (c) A method
 - (d) A data field
9. Which of the following statement is most accurate?
- (a) A reference variable is an object
 - (b) A reference variable refers to an object
 - (c) An object may contain other objects
 - (d) An object may contain the references of other objects
10. What is the output?
- ```
>>>d = {"john":40, "peter":45}
>>>d["john"]
```
- (a) 40
  - (b) 45
  - (c) "john"
  - (d) "peter"
11. If a function does not return a value, by default, it returns
- (a) None
  - (b) int
  - (c) double
  - (d) public E) null
12. Suppose list1 is [1, 3, 2], what is sum(list1)?
- (a) 5
  - (b) 4
  - (c) 6
  - (d) 2
13. \_\_\_\_\_ is a template, blueprint, or contract that defines objects of the same type.
- (a) A class
  - (b) An object
  - (c) A method
  - (d) A data field
14. Given the declaration `x = Circle()`, which of the following statement is most accurate
- (a) x contains an int value
  - (b) x contains an object of the Circle type
  - (c) x contains a reference to a Circle object
  - (d) You can assign an int value to x
15. What is the type of `sys.argv`?
- (a) set
  - (b) list
  - (c) tuple
  - (d) string

16. What relationship is appropriate for Student and Person?

- (a) association
- (b) composition
- (c) inheritance
- (d) object

17. What is len("Good")?

- (a) 1
- (b) 2
- (c) 3
- (d) 4

18. To check whether an object o is an instance of class A, use

- (a) o.isinstance(A)
- (b) A.isinstance(o)
- (c) isinstance(o, A)
- (d) isinstance(A, o)

19. What is k after invoking nPrint("A message", k)?

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

20. Which of the following function checks in a string that all characters are alphanumeric?

- (a) shuffle(lst)
- (b) capitalize()
- (c) isalnum()
- (d) isdigit()

PART - B (2 x 15 = 30 Marks)

21. (a) (i) Demonstrate how a class is defined and objects are created from that class in Python. (8)

(ii) Demonstrate operator overloading. (7)

Or

(b) (i) Demonstrate how method overriding implemented in Python. (7)

(ii) Write a student class in Python with name, rollno details. Include necessary methods. (8)

22. (a) Create a class called Employee with name, emp\_id, and salary details. Include a method to display the contents of an Employee object. Create another class Manager which inherits Employee class. The Manager class has project\_name, a list of employees as its members. Override the display method in Employee class to display the details of Manager. (15)

Or

(b) Define Inheritance. Illustrate multiple inheritance and method overriding are supported in Python. (15)

