KUMARAGURU college of technology
character is life

Register Number: ……..

B.E DEGREE EXAMINATIONS: JUNE 2015

(Regulation 2009)

Third Semester

CSE103: OBJECT ORIENTED PROGRAMMING

(Common to CSE & IT)

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Object Oriented programming is
   a) Algorithm centric b) Data centric
   c) Code centric d) Logic centric
2. Representing functions without much details is known as
   a) abstraction b) polymorphism
   c) inheritance d) virtual
3. Which is the function declaration (function name func) with two inputs (one integer pointer type and the other one character) and returns a character pointer
   a) char func(int *, char *) b) char * func(int *, char)
   c) char * func(int, char *) d) char * func(int *, char *)
4. Default arguments are given in the parameter passing
   a) From right to left b) From left to right
   c) anywhere d) only in the first position
5. Which operator is used to access the member function through an object pointer
   a) . operator b) & operator
   c) . || operator d) -> operator
6. Select the item which is not inheritance
   a) single b) abstract
   c) multilevel d) multiple
7. In a class declaration data or functions designated private are accessible
   a) To member functions of that class b) Only to public members of the class
   c) Only if you know the password d) To any function in a program
8. The syntax of member function defined outside of the class

a) Return type class name :: function name (arguments)
b) Class name :: function name(arguments)
c) Return type function name (arguments)
d) Return type class name : function name (arguments)

9. Virtual function concept is used to implement
a) Compile time polymorphism
b) Early binding
c) Dynamic binding
d) Inheritance

10. A friend function can be used to
a) allow access to unrelated class
b) decrease the versatility of an overloaded operator
c) allow access to classes whose source code is unavailable
d) mediate arguments between classes

PART B (10 x 2 = 20 Marks)

11. Distinguish between object oriented and object based languages
12. Define your own class to illustrate the real object bird.
13. What is function overloading? Give an example
14. Write a function to find the maximum of N numbers
15. Differentiate call by value and call by reference
16. Define copy constructor with an example
17. What are the differences between public and private derived classes
18. What is multiple inheritance? Give an example
19. List out the uses of virtual functions
20. What are conditions to be followed while declaring static functions and static variables?

PART C (5 x 14 = 70 Marks)

21. a) i) Write a program to find the sum of Odd and Even numbers in an array of N numbers. (7)
ii) Write down the characteristics of OOP. (7)

(OR)

b) i) Illustrate the use of polymorphism with an example and write the applications of OOP (10)
ii) Write down the structure of C++ program (4)

22. a) i) Explain about passing object to a function and return object from a function with an example (7)

ii) Write a program to do sum and multiplication of individual digit of a given number (7)

(OR)

b) i) Write a program to add length of the cloth in meter and centi meter. Use function overloading, inline function (10)

ii) What do you mean by constant argument? Give an example (4)

23. a) Write a program to calculate the first rank holder of the class using array of objects and also find each subject first mark holder. Each student has 3 subjects. Use the following concepts:

- Copy constructor
- Function overloading
- Operator overloading
- Constant parameter passing

Use object parameter passing

(OR)

b) i) Write about different types of constructors (10)

ii) Write a routine to concatenate two strings and copy a string (4)

24. a) i) Write a program to convert the object representing the room size in feet and inch to room size with meter. (10)

ii) What is Multilevel inheritance? Give an example (4)

(OR)

b) Write a program to create a class complex to represent complex numbers. Use Binary add and multiply operator overloading to add and multiply complex numbers.

25. a) i) Write the uses of Virtual function with an example (7)

ii) Write a note on Friend function (7)

(OR)

b) i) Explain about memory management (7)

ii) Write a program to count the number of times the function is called using static variable and static function (7)

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