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BE-260

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III Semester B.Tech.(CSE/ISE) Examination,
December - 2019/January - 2020

(CBCS Scheme)

Computer Science and Engineering

18CIPC306 : OBJECT ORIENTED PROGRAMMING

Time : 3 Hours Max. Marks : 100

Instructions : *(i) Questions Q.No.* ***1****, Q.No.* ***6*** *and Q.No.* ***9*** *are* ***compulsory****.*
(ii) Answer Q.No. ***2*** *or Q.No.* ***3****, Q.No.* ***4*** *or Q.No.* ***5*** *and Q.No.* ***7*** *or Q.No.* ***8****.*

1. (i) What does memory allocation for objects mean ? **15x1=15**

(a) Actual creation and memory allocation for object members
(b) Creation of member functions
(c) Actual creation and data declaration for object members
(d) Creation of data members for a class

(ii) Which feature of OOP indicates code reusability ?

(a) Encapsulation (b) Inheritance
(c) Abstraction (d) Polymorphism

(iii) If same message is passed to objects of several different classes and all of those can respond in a different way, what is this feature called ?

(a) Inheritance (b) Overloading
(c) Polymorphism (d) Overriding

(iv) If a function has to be called only by using other member functions of the class, what should be the access specifier used for that function ?

(a) Private (b) Protected (c) Public (d) Default

(v) How many classes should a program contain to implement the multiple inheritance ?

(a) Exactly 2 (b) At least 1 (c) At least 3 (d) At least 2

P.T.O.

(vi) Virtual functions are mainly used to achieve _____.
- (a) Compile time polymorphism
- (b) Interpreter polymorphism
- (c) Runtime polymorphism
- (d) Static polymorphism

(vii) C++ was originally developed by _____.
- (a) Clocksin and Mellish
- (b) Donald E. Knuth
- (c) Sir Richard Hadlee
- (d) Bjame Stroustrup

(viii) Which of the following is used for comments in C++ ?
- (a) // comment
- (b) /* comment */
- (c) both // comment or /* comment */
- (d) // comment */

(ix) Identify the correct statement.
- (a) Namespace is used to group class, objects and functions
- (b) Namespace is used to mark the beginning of the program
- (c) A namespace is used to separate the class, objects
- (d) Namespace is used to mark the beginning and end of the program

(x) Which of the following is the correct difference between cin and scanf() ?
- (a) Both are the same
- (b) cin is used for printing whereas scanf() is used for reading input
- (c) cin is a stream object whereas scanf() is a function
- (d) scanf() is a stream object whereas cin is a function

(xi) Which of the following operator(s) cannot be overloaded ?
- (a) .(Member Access or Dot Operator)
- (b) ?: (Ternary or Conditional Operator)
- (c) :: (Scope Resolution Operator)
- (d) All of the above

(xii) Which of these keywords is not a part of exception handling ?
- (a) try
- (b) finally
- (c) thrown
- (d) catch

(xiii) What is multithread programming ?

(a) It's a process in which two different processes run simultaneously.

(b) It's a process in which two or more parts of same process run simultaneously.

(c) It's a process in which many different process are able to access same information.

(d) It's a process in which a single process can access information from many sources.

(xiv) Which of these functions is called to display the output of an applet ?

(a) display() (b) paint()

(c) display Applet() (d) Print Applet()

(xv) Which of these can be used to fully abstract a class from its implementation ?

(a) Objects (b) Packages

(c) Interfaces (d) None of the mentioned

2. (a) Discuss how object oriented programming is different from procedural oriented programming. 6

(b) Explain how do you define a member function outside the class in C++ with an example. 6

(c) What is a friend function ? What are its special characteristics ? 5

OR

3. (a) What are classes ? Explain how to declare a class with example. 5

(b) Discuss the use of default arguments with an example. 5

(c) Explain with an example how do you use objects as function arguments. 7

4. (a) Illustrate the use of dynamic constructors with an example. 6

(b) Discuss the need for protected members in a class with an example. 6

(c) Give the syntax for overloading an operator and explain the process of overloading with an example. 5

OR

5. (a) Develop a C++ program to demonstrate operator overloading using friend function and discuss how it differs when friend function is not used. 10

(b) Explain hybrid inheritance with an example. 7

6. (a) What are virtual functions ? How to call virtual function through a Base Class Reference ? 5

(b) Explain the various I/O class functions available for performing formatted I/O in C++ . 8

(c) Write a note on generic functions. 4

7. (a) Explain how do you override methods in java ? 5

(b) Discuss the need for interfaces in java and also explain how interfaces are implemented ? 7

(c) What are exceptions and how do you handle exceptions in java ? 5

OR

8. (a) With an example explain the general structure of a java program. 5

(b) Discuss how packages provide access protection with the use of various access modifiers ? 6

(c) Explain how we can throw our own exceptions with an example ? 6

9. (a) With the neat diagram explain the life cycle of the thread. 7

(b) Explain the use of yield() and sleep() methods of a thread with an example. 5

(c) What are applets how do they differ from applications ? 5

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