



BE-260

100184

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

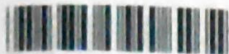
Instructions : (i) Questions Q.No.1, Q.No. 6 and Q.No. 9 are **compulsory**.
(ii) Answer Q.No. 2 or Q.No. 3, Q.No. 4 or Q.No. 5 and Q.No. 7 or Q.No. 8.

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

OR

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

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