

**OBJECT ORIENTED PROGRAMMING with C++&JAVA**

**(H-3)- BCA (6)**

**2013**

*Time : 3 hours*

*Full Marks : 100*

*Candidates are required to give their answers in their*

*Own word as far as practicable.*

*The questions are of equal value.*

*Answer any **five** questions, in which*

*Question no.1 is compulsory.*

**1. Choose the correct answer of the following :**

**(a) Which of the following operator could not be overloaded?**

- (i) +                      (ii) -  
(iii) ;;                    (iv) ==

**(b) A constructor is called when ever :**

- (i) An object is declared  
(ii) An object is used  
(iii) A class is declared  
(iv) A class is used

**(c) Which of the following represent hexadecimal number?**

- (i) 570                    (ii) hex (5)  
(iii) Ox9f                (iv) All of the above

- (d) **What is the return type of a constructor?**
- (i) **void**
  - (ii) **int**
  - (iii) **float**
  - (iv) **None of the above**
- (e) **The delete operator is used to :**
- (i) **Delete a variable name**
  - (ii) **Delete a member function**
  - (iii) **Deal locate storage**
  - (iv) **None of the above**
- (f) **A variable declared within a block { } has the following scope :**
- (i) **File scope**
  - (ii) **Local scope**
  - (iii) **Class scope**
  - (iv) **Global**
- (g) **If n is initialized to 7, the expression  $n \ll 4 \gg 2$  evaluate to :**
- (i) **56**
  - (ii) **7**
  - (iii) **14**
  - (iv) **None of the above**
- (h) **Which data type is returned by if else construct :**
- (i) **float**
  - (ii) **Boolean**
  - (iii) **int**
  - (iv) **None of the above**
- (i) **The major goal of inheritance in c++ is :**
- (i) **To Facilitate the conversion of data types**
  - (ii) **To help modular programming**
  - (iii) **To facilitate the reusability of code**
  - (iv) **To hide the detail of base classes**
- (j) **Which is not supported by java?**
- (i) **Package**
  - (ii) **Operator overloading**
  - (iii) **Interface**
  - (iv) **Applet**

2. **What are the essential characteristics of an object in C++? Discuss how a class can be defined in C++ with the help of a suitable example.**
3. **What is constructor ? What is parameterized constructor?**
4. (a) **What is the significance of scope resolution operator?**  
(b) **What is virtual base class. Explain its role and importance.**
5. **What do you mean by friend function and also write down the characteristics of friend function,**
6. **How can one achieve runtime polymorphism in C++ ? Explain with suitable example.**
7. (a) **Explain the process of compiling and running of java programs in detail.**  
(b) **List the basic data types used in java.**
8. **What is a thread? How to create a thread? Discuss the life cycle of a thread in detail.**
9. **What do you mean by runtime error and compile time error? What are exception? Discuss how to handle exceptions in java with suitable example.**
10. **Write notes on the following :**
  - (a) **Interface**
  - (b) **JVM**
  - (c) **Destructor**

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