

**2015**

**Time: 3 hours**

**Full Marks: 70**

**Group – A**

1. Select the most appropriate option from the following: 1x15 = 15
  - a. Modifiers in C++ are used to modify the declaration of :
    - i. Identifier
    - ii. Data type
    - iii. Variable
    - iv. None of the above
  - b. Delete is :
    - i. Memory release operator
    - ii. Scope resolution operator
    - iii. Memory allocation operator
    - iv. None of the above
  - c. typeid is:
    - i. Used to find type of an object at runtime
    - ii. Used to find modifier of an object
    - iii. Used to find variable
    - iv. None of the above
  - d. Class and structure:
    - i. Are same
    - ii. Completely different
    - iii. Different in memory allocation

**iv.** None of the above

**e.** Array is:

- i.** Static data structures
- ii.** Dynamic data structure
- iii.** Not a data structure
- iv.** Both (i) and (ii)

**f.** This pointer:

- i.** Far pointer
- ii.** Near pointer
- iii.** Pseudo pointer
- iv.** None of the above

**g.** Reference variable is:

- i.** Simple variable
- ii.** Variable to eliminate pointer problem
- iii.** A pointer
- iv.** All of the above

**h.** Which one is correct to declare an interface in a class?

- i.** By making all the methods pure virtual in a class
- ii.** By making all the methods abstract using the keyword abstract in a class
- iii.** By declaring the class as interface with the keyword interface
- iv.** It is not possible to create interface class in C++

**i.** Keywords support dynamic method of resolution is:

- i.** Abstract
- ii.** Virtual
- iii.** Dynamic
- iv.** Typeid

- j.** Inventor of C++ language is :
  - i.** John Dell
  - ii.** Bjarne Stroustrup
  - iii.** Thomson Steve
  - iv.** Karl Thomus
- k.** How many characters are recognized by ANSI C++?
  - i.** 32
  - ii.** 64
  - iii.** No limit
  - iv.** None of these
- l.** In dynamic binding, the code matching the object under current reference will be called at:
  - i.** Compile time
  - ii.** Run time
  - iii.** Editing time
  - iv.** Binding time
- m.** Which of the following cannot be legitimately passed to a function?
  - i.** A constant
  - ii.** A variable
  - iii.** A structure
  - iv.** A header file
- n.** Following are the object oriented programming language:
  - i.** JAVA
  - ii.** C++
  - iii.** Small talk
  - iv.** All of the above
- o.** Union and structure are:

- i. Same in C++
- ii. Different in C++
- iii. Similar in C++
- iv. None of the above

### Group – B

Answer any **five** questions of the following:

4x5 = 20

- 2. Show example of quick sort using 10 data and time complexity.
- 3. Show example of late binding
- 4. Show top down program design using examples.
- 5. Show example of operator overloading.
- 6. Show example of new and delete operator
- 7. Show example of virtual function.

### Group – C

Answer any **five** questions of the following:

4x5=20

- 8. Show example of template class in C++.
- 9. Write features of oop's of C++.
- 10. Show example of polymorphism in C++.
- 11. Show example of containers in C++.
- 12. Show example of iostream classes in C++.
- 13. Show hybrid inheritance with example.
- 14. What is software life cycle? Explain in detail.