Object Oriented Programming
CSC2123
Tutorial 2

A. Mark the most suitable answer from the given answers.

1   Multiple inheritance leaves room for a derived class to have _____ members
- A   dynamic
- B   private
- C   protected
- D   public
- E   ambiguous

2   The process of building new classes from existing one is called,
- A   polymorphism
- B   inheritance
- C   overloading
- D   overriding
- E   none of above

3   Which of these keywords must be used to handle the exception thrown by try block in some rational manner?
- A   try
- B   catch
- C   finally
- D   throw
- E   throws

4   If class C is derived from class B, which is derived from class A, all through public inheritance, then class C member function can access,
- A   protected and public data only in C and B
- B   protected and public data only in C
- C   private data in A and B
- D   protected data in A and B
- E   private data in B

5   Which is not a feature of OOP in general definition
- A   Code reusability
- B   Modularity
- C   Flexibility
- D   Duplicate/ Redundant data
- E   Efficient code

6   Which feature of OOP illustrated the code reusability
- A   Polymorphism
- B   Abstraction
- C   Encapsulation
- D   Method Overloading
- E   Inheritance

7   In OOP public, private, protected are
- A   Classes
- B   Access modifiers
- C   Interfaces
- D   Variables
- E   Method signatures

8 Which of the following keyword is used to explicitly raise an exception?
   A   raise
   B   catch
   C   throw
   D   throws
   E   try

9 Private member of a class is visible to
   A   every where
   B   in sub class
   C   In super class
   D   members in the same package
   E   members of same class only

10 To catch the exceptions _____
   A   an object must be created to catch the exception
   B   a variable should be created to catch the exception
   C   an array should be created to catch all the exceptions
   D   a string have to be created to store the exception
   E   a class have to be created to store the exception

11 Keyword that uses to inherit a class
   A   extend
   B   extends
   C   implement
   D   implements
   E   inherits

12 Universal class for exception handling
   A   Object
   B   Error
   C   Errors
   D   Exceptions
   E   Maths

13 Which among the following is safe?
   A   Down casting
   B   Up casting
   C   Both up casting and down casting
   D   If up casting is safe then down casting is not, and vice versa
   E   Both up casting and down casting are not safe

14 A thread become non-runnable when,
   A   Its stop method is invoked
   B   Its sleep method is invoked
   C   Its finish method is invoked
   D   Its init method is invoked
   E   None of above

15 In java thread can be created by,
   A   Extending the thread class
   B   Implementing Runnable interface
   C   Extending threads class
   D   Both extending the thread class and implementing Runnable interface
   E   None of above

B   Fill in the blanks using most appropriate word.

(static, immutable, run, polymorphism, thread, catch, interface, yield, non-modifiable, integer)

1   The term polymorphism refers to the fact that a variable can hold objects of different types.

2   In an interface all methods are abstract.

3   The class variable is declared as static

4   Exception generated in try block is caught in catch block

5   The this pointers are non-modifiable

6   Encapsulation helps in writing immutable classes in java

7   Thread priority in java is integer that specify relative priority of one thread to another

8   A single sequential flow of control within a program is thread

9   yield method is used to temporarily release time for other threads.

10   When class extends the Thread class, it should override run method of Thread class to start that thread

C   Answer the following questions.

1   What is the difference between abstract class and interface?

2   Write short notes on access modifiers. public private protected default

3   Distinguish between following terms
     A   Objects and classes
     B   Data abstraction and data encapsulation
     C   Inheritance and polymorphism
     D   Dynamic binding and message passing

4   What are the differences between default and parameterized constructors?

5   What is the main difference between overloading and overriding?

6   What is the difference between throw, throws and throwable in Java?

7   a   What is a thread?
     b   Differentiate between process and thread.

8   What are the advantages of multi-threading?

9   Explain the life cycle of thread

10   Explain the types of variables in java.