

CS/B.Tech/ECE/EVEN/SEM-6/EC-605A/2015-16



**MAULANA ABUL KALAM AZAD UNIVERSITY OF  
TECHNOLOGY, WEST BENGAL**

**Paper Code : EC-605A**

**OBJECT ORIENTED PROGRAMMING**

**Time Allotted : 3 Hours**

**Full Marks : 70**

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own  
words as far as practicable.*

**GROUP – A**

**( Multiple Choice Type Questions )**

1. Choose the correct alternatives for the following :

$$10 \times 1 = 10$$

1) What is the access modifier that will allow members of one class to have access only to members of another class in the same package ?

- a) Public
- b) Protected
- c) Synchronized
- d) Abstract.

CS/B.Tech/ECE/EVEN/SEM-6/EC-605A/2015-16

ii) Which of the following is/are valid constructor for class sample ?

- a) Public void sample    b) Public sample
- c) Void sample            d) All of these.

iii) Which of the following about interfaces is true ?

- a) Cannot create a reference
- b) Can only create a reference
- c) Can create a reference and instantiate an interface
- d) Can only be instantiated.

iv) Final keyword can be used

- a) not to permit further inheritance
- b) to prevent further overriding
- c) to assign constant values
- d) for a block.

- v) All methods in a final class are final static
- a) True
  - b) False
  - c) Methods cannot be final.
- vi) Which of the following statements are true ?
- a) There can be only one package statement in java source code
  - b) There can be more than 1 import statement and more than 1 package statement in java source code
  - c) There can be only one package statement and only 1 import statement in the java source code
  - d) None of these.

- vii) What is the output of the following code ?

```
1) class MyException extends Exception[]
2) class Divider
3) {
4)     public void Divider(int n1, int n2)
5)     {
6)         if(n2==0) throws MyException()
7)     }
8) }
```

- a) Compile time error in line 6
- b) Compile time error in line 1
- c) Compile and executes
- d) Runtime error.

- viii) Which of the following statements are true ?

- a) A try block can have multiple catch block
- b) A try block can only have one catch block
- c) A try block should be followed by at least one catch
- d) All of the above statements are true.

ix) Which of the following statements are true ?

Class MyClass is abstract. Class abc extends MyClass

- a) MyClass s=new MyClass ();
- b) abc a=new abc ();
- c) MyClass s=new abc ();
- d) abc a=new MyClass ();

x) Which method should the application call when we wants to redraw a component ?

- a) paint()                      b) repaint()
- c) updateLayout ()        d) redraw ();

#### GROUP - B

##### ( Short Answer Type Questions )

Answer any *three* of the following.  $3 \times 5 = 15$

2. What is the difference between the PATH and CLASSPATH ? What is JVM ? 2 + 3
3. Illustrate the use of *this* and *super* with example.
4. What is the difference between *final*, *finally* and *finalize* ?

5. What do you mean by interface ? Write the differences between interface and abstract class. 2 + 3
6. Describe local applet and remote applet with example.

#### GROUP - C

##### ( Long Answer Type Questions )

Answer any *three* of the following.  $3 \times 15 = 45$

7. What is polymorphism ? Briefly explain the different types of polymorphism present in java with appropriate example. What is constructor ? Explain constructor overloading with proper example. 2 + 7 + 2 + 4
8. What are different types of inheritance ? What is the way to implement multiple inheritance in Java ? Explain constructor chaining with example. What is partial implementation of interface ? 6 + 3 + 3 + 3
9. What is encapsulation ? Explain how encapsulation provides information hiding. Explain the different types of nested class with example. What is local class in java ? 2 + 3 + 6 + 4
10. Describe the complete life cycle of a thread. Explain the purpose of synchronized block with example. What is thread priority ? Describe garbage collector in java. 4 + 6 + 2 + 3

CS/B.Tech/ECE/EVEN/SEM-6/EC-605A/2015-16

11. Write short notes on any *three* of the following : 3 × 5

- a) String literal
  - b) Wrapper class
  - c) Package
  - d) Applet life cycle
  - e) Container class.
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