



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/BCA/SEM-6/BCAE-602B/2012  
2012**

**OBJECT ORIENTED PROGRAMMING WITH JAVA**

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 )**

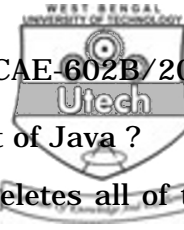
1. Choose the correct alternatives for the following :

10 × 1 = 10

- i) A constructor
  - a) must have the same name as the class it is declared within
  - b) is used to create objects
  - c) may be declared private
  - d) none of these.
  - e) a, b, c.



- ii) Which of the following may be part of a class definition ?
- a) Instance variables
  - b) Instance methods
  - c) Constructors
  - d) All of these.
- iii) What is the difference between a Java applet and a Java application ?
- a) An application can in general be trusted whereas an applet can't
  - b) An applet must be executed in a browser environment
  - c) An applet is not able to access the files of the computer it runs on
  - d) (a), (b) and (c).
- iv) What is byte code in the context of Java ?
- a) The type of code generated by a Java compiler
  - b) The type of code generated by a Java Virtual Machine
  - c) It is another name for a Java source file
  - d) It is the code written within the instance methods of a class.



- v) What is garbage collection in the context of Java ?
- a) The operating system periodically deletes all of the java files available on the system
  - b) Any package imported in a program and not used is automatically deleted
  - c) When all references to an object are gone, the memory used by the object is automatically reclaimed
  - d) The JVM checks the output of any Java program and deletes anything that doesn't make sense.

- vi) Consider the following code snippet

```
String river = new String ("Columbia") ;  
System.out.println(river.length() ) ;
```

What is printed ?

- a) 6
  - b) 7
  - c) 8
  - d) Columbia
  - e) River.
- vii) You read the following statement in a Java program that compiles and executes

```
submarine.dive(depth);
```

What can you say for sure ?

- a) Depth must be an int
- b) Dive must be a method
- c) Dive must be the name of an instance field
- d) Submarine must be the name of a class
- e) Submarine must be a method.



viii) Consider the following program :

```
import myLibrary. *;  
  
public class ShowSomeClass  
{  
    // code for the class...  
}
```

What is the name of the Java file containing this program ?

- a) myLibrary.java
  - b) ShowSomeClass.java
  - c) ShowSomeClass
  - d) ShowSomeClass.class
  - e) Any file name with the java suffix will do.
- ix) Which of the following is TRUE ?
- a) In java, an instance field declared public generates a compilation error
  - b) int is the name of a class available in the package java.lang
  - c) Instance variable names may only contain letters and digits.
  - d) A class has always a constructor ( possibly automatically supplied by the java compiler )
  - e) The more comments in a program, the faster the program runs.



- x) What is the full form of JVM ?
- a) Java Visual Machine
  - b) Java Variable Management
  - c) Java Virtual Machine
  - d) None of these.

**GROUP - B**

**( Short Answer Type Questions )**

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

2. What is similarity/difference between an abstract class and interface ?
3. What is thread ? 1
- What is multi-threading ? 2
- How to create a thread in a program ? 2
4. Display Traingle as follow :
- 1
- 2 3
- 4 5 6
- 7 8 9 10 ... N\*/

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5. What is the package ? What is the difference between throw and throws keywords ? 2 + 3
6. Explain polymorphism with suitable example.

**GROUP - C**

**( Long Answer Type Questions )**

Answer any *three* of the following. 3 × 15 = 45

7. a) What is the difference between Swing and AWT components ? 3
- b) Write a program to convert given no. of days into months and days. 5
- c) How are this and super used ? 2
- d) Write the difference between method overriding and method overloading. 5
8. a) What is meant by "Abstract Interface" ? 3
- b) What is the main difference between Java platform and other platforms ? 5
- c) Write life cycle of the Applet 7
9. a) In System.out.println(), what is System, out and println, please explain ? 3
- b) Explain the following string handling function with syntax. 8
- c) Explain inheritance, Encapsulation concept. 4



10. a) What is the purpose of finalization ? 3
- b) What are the different identifier states of a Thread ? 6
- c) Write a program that welcomes a person whose name is passed to as its parameter. Write the exception handling code to handle the case when no name is passed to then appliation. 6
11. Compare between method overloading and method overriding in Java. What is the superkey in Java. Explain multithreading with suitable example. What is wrapper class Java ? 4 + ( 3 + 4 ) + 4

