



Name : .....  
Roll No. : .....  
Invigilator's Signature : .....

**CS/B.Tech/IT (NEW)/SEM-4/IT-401/2013**

**2013**

**OBJECT ORIENTED PROGRAMMING AND UML**

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 :

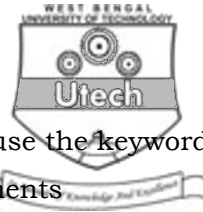
$$10 \times 1 = 10$$

- i) `int i = 2 ;`

`System.out.println ("welcome" + 1 + 2) ;`

The Output is :

- |                   |                   |
|-------------------|-------------------|
| a) welcome3       | b) welcome12      |
| c) compiler error | d) none of these. |
- ii) Which of the following is known as short-circuit and operator ?
- |                            |                       |
|----------------------------|-----------------------|
| a) <code>&amp;&amp;</code> | b) <code>&amp;</code> |
| c) <code>?&amp;</code>     | d) None of these.     |
- iii) A constructor can be inherited using the keyword
- |          |                   |
|----------|-------------------|
| a) Final | b) Static         |
| c) Super | d) None of these. |



- iv) To inherit an interface from a class, we use the keyword  
a) extends                                      b) implements  
c) both (a) & (b)                              d) none of these.
- v) In java applet, Stop () method can be invoked for a thread  
a) once    b) twice  
c) compiler error                              d) not at all.
- vi) Consider the following statements :  
int a[ ] = new int [3];  
a[3] = 7;  
System.out.println(a[3]);  
The output is  
a) 3    b) 7  
c) Compiler error                              d) Run time error.
- vii) Dynamic method dispatcher is used for  
a) resolving method overriding  
b) resolving multilevel inheritance  
c) resolving multiple inheritance anomaly  
d) none of these.
- viii) How many default constructors can a class have, when it has constructor ?  
a) 1    b) 0  
c) 2    d) Any number.
- ix) String s = "WBUT";  
System.out.println(s.charAt(2));  
The output is  
a) U    b) Exception occurs  
c) 2    d) B.

a) String                      b) Void  
c) Float                        d) None of these.



8. a) What is wrapper class ?  
b) Compare and contrast abstract class and interface with example.  
c) Discuss different types of inheritance with example.  
d) How does String class differ from String Buffer. Write a program to reverse a string using String class.

$2 + 3 + 4 + (2 + 4)$

9. a) What is an Exception ?  
b) Explain the differences between Error and Exception.  
c) What is the use of “finally” block ?  
d) Define an exception called “NO Match Exception” that is thrown when a string is not equal to “India”. Write a program that uses the exception.

$2 + 3 + 3 + 7$

10. a) What is Thread ?  
b) How Thread can be implemented in Java.  
c) Describe the life cycle of Thread.  
d) Write a program to describe inter Thread communication.

$1 + 3 + 4 + 7$

11. Write Short notes on any *three* of the following :  $3 \times 5$

- a) AWT  
b) Applet  
c) Inner class  
d) Activity diagram  
e) Synchronisation.

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