

Seat No. : _____

XA-102

T.Y. B.C.A.

March-2013

BCA 303 : Internet Technologies & Programming

Time : 3 Hours]

[Max. Marks : 70

- Instructions :** (1) **All** questions are compulsory.
(2) Figures in right indicate marks.
(3) Take care of case sensitivity.

1. (a) Answer following (any **two**) : **8**
(i) Explain various features of Java Language.
(ii) Explain 6 numeric data types of Java.
(iii) Draw the figure only of Java architecture and explain Java virtual machine.
- (b) Answer following (any **three**) : **6**
(i) Explain type casting in Java with example.
(ii) What will be value of y after execution of following code ?

```
int a=25,b=60,c=5;  
double x=5.5,y;  
y=a + b / (2*c) - x;
```


(iii) What are the command line arguments ? How they are passed ? Explain with example.
(iv) Give three keywords of Java that can be used in loops.
2. (a) Answer following (any **two**) : **8**
(i) Write a short note on Applet Life Cycle.
(ii) Explain parameter passing in an applet.
(iii) Explain Java's model for handling events.
- (b) Answer following (any **two**) : **6**
(i) Explain object destruction process in Java.
(ii) Explain the use of static block with example.
(iii) Write a Java program to generate 10 random integer numbers between 1 and 10.

3. (a) Answer following (any **two**) : **8**
(i) How interface is different from an abstract class ?
(ii) List some API packages and their use in Java.
(iii) Explain various access modifiers and their visibility.
- (b) Answer following (any **two**) : **6**
(i) When throws keyword is used in exception handling ?
(ii) Give three exception class names. Also state when that exceptions are thrown.
(iii) Explain the use of Finally Block.
4. (a) Answer following (any **two**) : **8**
(i) Explain use of priorities in multithreading.
(ii) What is multithreading ? Explain synchronization in controlling threads.
(iii) Write a short note on Thread Life Cycle.
- (b) Answer following (any **two**) : **6**
(i) Explain applet tag and its attributes.
(ii) Explain parameters of drawLine() and drawPolygon() methods.
(iii) How thread can be created using an interface ? When threads are created using an interface ?
5. (a) Answer following (any **two**) : **8**
(i) Explain the use of BufferedReader class with example.
(ii) Write a Java program to write 10 integer numbers on file and later display them.
(iii) Write a short note on File Class.
- (b) Answer following (any **two**) : **6**
(i) Write a Java program to copy a file.
(ii) Explain variable size two dimensional array using example.
(iii) What are the wrapper classes ? Explain any one wrapper class in detail.
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