

Time: 3 Hours

DECEMBER 2013

Max. Marks: 100

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

NOTE: There are 9 Questions in all.

- Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.
- The answer sheet for the Q.1 will be collected by the invigilator after 45 minutes of the commencement of the examination.
- Out of the remaining EIGHT Questions, answer any FIVE Questions, selecting THREE questions from Part A and TWO questions from Part B. Each question carries 16 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

Q.1 Choose the correct or the best alternative in the following: (2×10)

a. Which statement is true about an object?

- (A) An object is what classes are instantiated from
- (B) An object is an instance of a class
- (C) An object is a blueprint for creating concrete realization of abstractions
- (D) An object is a reference to an attribute

b. Given that Thing is a class, how many objects are created by the following code?

```
Thing item, stuff;  
item = new Thing();  
Thing entity = new Thing();
```

- (A) One object is created
- (B) Two objects are created
- (C) Three objects are created
- (D) One reference variable is created

c. How do objects pass messages in Java?

- (A) They pass messages by modifying each other's fields
- (B) They pass messages by modifying the static variables of each other's classes
- (C) They pass messages by calling each other's instance methods
- (D) They pass messages by calling static methods of each other's classes

d. Given the following code, which of the given statements is true?

```
class A {  
    int value1;  
}  
class B extends A {  
    int value2;  
}
```

- (A) Class A extends class B
- (B) Class B is the superclass of class A
- (C) Class A inherits from class B
- (D) Class B is a subclass of class A

Code: DC60**Subject: JAVA AND WEB PROGRAMMING**

- e. Javascript is used for
- (A) Client-side programming (B) Server-side programming
(C) Database coding (D) None of these
- f. Which of the following do not denote a primitive data value in Java?
- (A) "t" (B) 'k'
(C) 50.5F (D) all of these are valid
- g. Which of the following primitive data types are not integer types?
- (A) boolean (B) byte
(C) long (D) short
- h. The 'href' tag is used to insert _____ in HTML.
- (A) table (B) list
(C) button (D) hyperlink
- i. Given the following code within a method, which statement is true?
- ```
int a, b;
b = 5;
```
- (A) Local variable a is not declared  
(B) Local variable b is not declared  
(C) Local variable a is declared but not initialized  
(D) Local variable b is declared but not initialized
- j. \_\_\_\_\_ is used to identify resources on the internet.
- (A) URL      (B) HTTP  
(C) DNS      (D) FTP

---

**PART A****Attempt any THREE questions. Each question carries 16 marks.**

---

- Q.2** a. What do you understand by platform-independence and how is it implemented by Java? (8)
- b. How Java is associated with the internet? (8)
- Q.3** a. Explain Numeric and Non-Numeric data types of Java. (8)
- b. Explain how Java takes care of type conversion and casting with examples. (8)
- Q.4** a. Explain Method overloading and overriding with example for each. (8)

**Code: DC60****Subject: JAVA AND WEB PROGRAMMING**

- b. How are two dimensional arrays declared in Java? Write a program to demonstrate the same. (8)

**Q.5** a. How do we define interfaces in Java? Explain with the help of an example. (4)

- b. Explain the one method for creating threads in Java. (4)

- c. What are the benefits of organizing classes into packages? (8)

**Q.6** a. Explain throw, throws and finally clauses of java exceptions. (8)

- b. Write a program in Java to copy one file into another. (8)

---

**PART B**

**Attempt any TWO questions. Each question carries 16 marks.**

---

**Q.7** a. Which are the different content types available for web? Explain each. (8)

- b. How are web pages generated dynamically? Explain. (8)

**Q.8** a. Explain how special symbols ©, ®, etc. can be inserted in a web page using HTML. (8)

- b. Explain the different ways to achieve Unity in pages. (8)

**Q.9** a. Explain the HTTP framework briefly. (8)

- b. What is the outline of a CGI program? Briefly explain. (8)