

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

- 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)