

Time: 3 Hours

DECEMBER 2014

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. Java Source Code is compiled into _____

- (A) .exe (B) Source code
(C) .obj (D) byte code

b. Which of the following is used to interpret and execute the Java Applet classes hosted by HTML?

- (A) Applet screen (B) AppletViewer
(C) AppletWatcher (D) AppletShow

c. Which of the following is not a keyword in Java?

- (A) finalize (B) boolean
(C) assert (D) abstract

d. Which of the following is used to see the details of the compilation?

- (A) javac -verbose TestExample.java
(B) javac -detail TestExample.java
(C) javac -debug TestExample.java
(D) None of the above

e. What is the use of <alt> value in img tag?

- (A) Alternative text for an image (B) Alternative source for an image
(C) Caption for an image (D) All of these

- f. Which of the following is correct regarding meta tag in HTML?
- (A) `<meta>....</meta>` (B) `<meta name= " "/>`
(C) `<metadata>.....</metadata>` (D) `<metadata name= " "/>`
- g. HTML tags are used to describe:
- (A) Content (B) Definition
(C) Language (D) None of these
- h. Which is not the selector type of CSS?
- (A) Type selector (B) Universal selector
(C) Local selector (D) Descendant selector
- i. Which elements are mandatory in an XHTML document?
- (A) doctype, html and body (B) doctype, html, head, body, and title
(C) doctype, html, head, and body (D) css, html, head, body, and title
- j. Which doctype should be added to your XHTML document, if you use CSS in your document?
- (A) Loose (B) Transitional
(C) Strict (D) Frameset

PART A

Attempt any THREE questions. Each question carries 16 marks.

- Q.2** a. What is Java Runtime Environment? Explain the key differences between C++ and Java. (6)
- b. Illustrate the concept of passing command line arguments by a Java Program. (6)
- c. Explain the terms: (4)
(i) JVM
(ii) Web Browser and its examples
- Q.3** a. "One object in Java can be assigned as reference to another object of the same type." To explain this concept write a complete Java program and show how a reference object works? (8)
- b. What is an instance variable? Explain how an instance variable of a class can have different values for each object of that class? (8)
- Q.4** a. What is encapsulation? Explain, how encapsulation provides modularity and information hiding? (8)

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

- b. List the eight basic data types used in JAVA. Give examples. (4)
- c. Compare in terms of their functions, the following pairs of statements: (4)
- (i) While and do.... while
 - (ii) While and for
 - (iii) break and continue
- Q.5** a. What is the difference between abstract class and interface? Explain with example how and when to use abstract class and interface? (8)
- b. Does java support multiple inheritance? Justify your answer with an example. (8)
- Q.6** a. What is an exception? Write an exception subclass which throws an exception if the value of a variable 'age' passed as argument to a method is less than 20 (8)
- b. Explain various Stream Classes of Java. Give syntax in Java to read/write characters and bytes. (8)

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

- Q.7** a. Define the syntax of tables, forms and frames of HTML. (6)
- b. Discuss the guidelines to be followed in designing Website and Web page. (6)
- c. What is meant by server page? Explain. (4)
- Q.8** a. Give a XHTML code to create a scroll bar when an element's content is too big to fit. (8)
- b. Give short note on information architecture (IA) and its relevance in web designing. (8)
- Q.9** a. Explain CGI architecture. In what situation can CGI be faster than Servlet? Explain. (8)
- b. Explain the concept of Cascading style sheets in XHTML. Give illustrative examples. (8)