

JUNE 2011

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 of the following is not a legal identifier?

- | | |
|--------------|------------|
| (A) a2z | (B) ödipus |
| (C) 52pickup | (D) _class |

b. Which statement is true?

- (A) new and delete are keywords in the Java language.
(B) try, catch, and thrown are keywords in the Java language.
(C) static, unsigned, and long are keywords in the Java language.
(D) return, goto, and default are keywords in the Java language.

c. Which of the following primitive data types are not integer types?

- | | |
|----------------|----------------|
| (A) Type long | (B) Type byte |
| (C) Type float | (D) Type short |

d. What is the value of the expression $(1 / 2 + 3 / 2 + 0.1)$?

- | | |
|---------|---------|
| (A) 1 | (B) 1.1 |
| (C) 1.6 | (D) 2 |

e. Which of the following expressions evaluates to true?

- | | |
|--------------|--------------------|
| (A) (false) | (B) (null != null) |
| (C) (4 <= 4) | (D) (!true) |

f. Given the following declaration, which expression returns the size of the array, assuming the array has been initialized?

int[] array;

- | | |
|----------------------|--------------------|
| (A) array[].length() | (B) array.length() |
| (C) array[0].length | (D) array.length |

- g. Which one of the following array declaration statements is not legal?
- (A) `int []a[] = new int [4][4];` (B) `int a[][] = new int [4][4];`
(C) `int a[][] = new int [][4];` (D) `int []a[] = new int [4][];`
- h. Which one of these is a valid method declaration?
- (A) `void method1 { /* ... */ }` (B) `void method2() { /* ... */ }`
(C) `void method3(void) { /* ... */ }` (D) `method4() { /* ... */ }`
- i. Given a class named `Book`, which one of these is a valid constructor declaration for the class?
- (A) `Book(Book b) { }` (B) `Book Book() { }`
(C) `private final Book() { }` (D) `void Book() { }`
- j. How restrictive is the default accessibility compared to public, protected, and private accessibility?
- (A) Less restrictive than public.
(B) More restrictive than public, but less restrictive than protected.
(C) More restrictive than protected, but less restrictive than private.
(D) More restrictive than private.

PART A

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

- Q.2** a. List the important characteristics of Java Language. (8)
b. How Java is more secured than other languages? Also state why Java is strongly associated with the Internet? (8)
- Q.3** a. Explain how Java takes care of type conversion and Casting with examples. (8)
b. Write a program in Java to implement basic stack operations. (8)
- Q.4** a. Explain method overloading and overriding with example for each. (8)
b. Explain different types of inheritance in Java. (8)
- Q.5** a. What is a package in Java? Explain different access modifiers of Java. (8)
b. What is an Interface in Java? Explain how do you create interfaces? (8)
- Q.6** a. Explain how Java handles exceptions with try, catch and finally. (8)
b. Explain the two methods for creating threads in Java. (8)

PART B

Attempt any TWO questions. Each question carries 16 marks.

- Q.7** a. What is Domain Name System? Mention the points to note about domain space. (8)
- b. Briefly explain the steps of Web development process. (8)
- Q.8** a. What is Server Side Includes? Explain how you include SSI in web pages. (8)
- b. Mention the different information architectures that can be good models for structuring the website. (8)
- Q.9** a. What is CGI? Explain the use of cgi-bin directory in CGI programs. (8)
- b. What is the difference between block- level and inline elements? Explain with examples. (8)