

DiplETE – CS

Time: 3 Hours

JUNE 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 is a reserved word in the Java programming language?

- (A) method (B) native
(C) subclasses (D) array

b. Which of the following are legal lines of code?

- (A) int w = (int)888.8; (B) byte x = (byte)1000L;
(C) long y = (byte)100; (D) All of these

c. Given a method in a class, what access modifier do you use to restrict access to that method to only the other members of the same class?

- (A) final (B) static
(C) private (D) protected

d. Given the following,

```
class SSBool {
    public static void main
        (String [] args) {
        boolean b1 = true;
        boolean b2 = false;
        boolean b3 = true;
        if ( b1 & b2 | b2 & b3 | b2 )
            System.out.print("ok ");
        if ( b1 & b2 | b2 & b3 | b2 | b1 )
            System.out.println("dokey");
        }
    }
```

what is the result?

- (A) ok (B) dokey
(C) ok dokey (D) No Output Produced

e. The methods wait() and notify() are associated with

- (A) Exception Handling (B) File Handling
(C) Inheritance (D) Inter-thread communication

f. Given the following,

```
String x = "xyz";  
x.toUpperCase();  
String y = x.replace('Y', 'y');  
y = y + "abc";  
System.out.println(y);  
what is the result?:
```

- (A) XyZabc (B) xyzabc
(C) XYZabc (D) None of these

g. Given the following,

```
int I = 0;  
label:  
if (I < 2) {  
System.out.print("I is " + I);  
I++;  
continue label;  
}  
what is the result?
```

- (A) I is 0 (B) I is 0, I is 1
(C) Compilation Fails (D) None of these

h. A modem is not needed when accessing the internet through

- (A) LAN (B) Wi-Fi
(C) Cable (D) None of these

i. To host a web site which of the following is required?

- (A) Database Server (B) Mail Server
(C) Exchange Server (D) Web Server

j. In HTML, URI(Uniform Resource Identifier) is used to:

- (A) to create a frame document

- (B) to create an image map on the web page
- (C) to customize an image on web
- (D) to locate a resource on the internet

PART A

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

- Q.2** a. List four major differences between C++ and Java. (4)
- b. What are the following components used for?
(i) javac (ii) java
(iii) appletviewer (iv) jdb (4)
- c. Explain the Java program structure. (8)
- Q.3** a. Explain iteration statements in java with suitable examples. (8)
- b. Explain break and continue statements in detail with examples. (8)
- Q.4** a. Design a class to represent an employee. Include following data members and methods:
Variables:
Name of employee
Age
Sex
DOB(dd/MM/yyyy)
Basic Salary
Marital status
Constructor:
to assign initial values
Methods:
to display various details about employee (8)
- b. What is inheritance and purpose of using inheritance? What is the use of keyword super in inheritance? Explain with an example. (8)
- Q.5** a. What is an interface in java? Differentiate between interface and abstract classes. (8)
- b. What is difference between multithreading and multitasking? Explain life cycle of a thread in java. (8)
- Q.6** a. What is an exception? Explain with suitable example how a program throws an exception explicitly? (6)
- b. Write a java program to determine whether a string is palindrome or not. (6)

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- c. What are streams in Java? Explain. (4)
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PART B**Attempt any TWO questions. Each question carries 16 marks.**

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- Q.7** a. What is HTML? Write the structure of an HTML document. (8)
- b. What is web hosting and types of web hosting services?. (4)
- c. What is HTTP? Define purpose of any two HTTP methods. (4)
- Q.8** a. Explain briefly the border, cellpadding, cellspacing and background attributes of the table tag in XHTML. (8)
- b. Explain strict, transitional and frame set DTD(document type definition) in XHTML validation. (4)
- c. Give brief overview of the steps of information architecture (IA) (4)
- Q.9** a. Give brief overview of CGI. What are the components of CGI model? Explain web server-handler interaction. (8)
- b. Explain the use of the following array methods:
- | | |
|-------------------|----------------|
| (i) pop() | (ii) push(...) |
| (iii) concat(...) | (iv) reverse() |
- (8)