

Time: Three hours

Maximum : 80 Marks

Answer **ALL** questions

PART A - (8 X 2 = 16 marks)

1. Which of the following is a valid declaration of an object of class B?
 - a) B b1() = new B ;
 - b) B b1 = new B;
 - c) B b1 = new b1();
 - d) B b1 = new B ();
2. Predict the output of the following JavaScript code.

```
var x=7; var y=6;
var res=eval("x*y");
document.write(res);
```

 - A. "42"
 - B. 42
 - C. 7*6
 - D. "7*6"
3. A URL specifies the following:
 - (i) The name of ISP
 - (ii) Protocol used
 - (iii) Domain name of server hosting web page
 - (iv) Name of folder with required information
 - (v) Name of document formatted using HTML
 - a. ii, iii, iv, v
 - b. i, ii, iii, iv
 - c. ii, iii, iv
 - d. i, iii, iv, v
4. Which packages represent interfaces and classes for servlet API?
 - a. javax.servlet and javax.servlet.http
 - b. java.servlet.*.*
 - c. java.servlet and java.servlet.http
 - d. None of the above.
5. Write a Java program to find sum of n numbers.

6. Write a Javascript program to greet the user.
7. Write an applet program to display emoji.
8. Write down the servlet code to create sessions for the login page.

PART B - (4 X16 = 64 marks)

09. (a) (i) Write a Java program to find factorial of a number using static and non static methods. **(8)**
(ii) With an example program demonstrate the usage of IO streams. **(8)**

(OR)

(b) Draw the MVC architecture and explain the working of MVC with an application. **(16)**
10. (a) How do you create multiple threads in Java? Write a program that prints multiplication table using multiple threads. **(16)**

(OR)

(b) (i) Write Down the Code that throws unchecked exceptions for any real time example. **(8)**
(ii) Write down the code that invokes methods remotely using reflection. **(8)**
11. (a) Write a html code to create employee registration form Apply JavaScript validation to check for mandatory fields. **(16)**

(OR)

(b) (i) Write a Javascript to implement simple hand calculator. **(8)**
(ii) Use a AJAX script to display the details of library xml. **(8)**
12. (a) Design a Servlet Program to check balance of the given account number. The program must facilitate Deposit and withdrawal operations in the database. **(16)**

(OR)

(b) Design a JSP program to implement Employee Information System. The program must facilitate Insert, Delete and Display operations in the database. **(16)**