105

NMCA-314

M.C.A.

SPL. THEORY EXAMINATION, 2014-15

INTERNET & JAVA PROGRAMMING

Time : 3 Hours]   *[Total Marks : 100*

Note : (i) All questions are compulsory.

    (ii) All questions carry equal marks.

1. Attempt any four parts of the following: (5x4=20)

    (a) What is internet? What are web address? Explain the general syntax of web address.

    (b) Discuss the utility of Internet Browser.

    (c) Explain IEEE standard 802.3 and Ethernet in terms of performance.

    (d) Discuss various methods of framing in brief.

    (e) Explain why optic fibre media is considered best? Explain briefly FDDI LAN.

5. Write short notes on (any four) :   (5x4=20)

    (a) Manipulation of events in bean box.

    (b) Networking classes

    (c) Usefulness of Java for Internet based applications.

    (d) Cookies and their use for retrieving information from clients.

    (e) HTTP redirects

    (f) Need for inter servelet communication.

***

(f) What are the hardware and software requirements for video conferencing?

2. Attempt any four parts of the following: (5x4=20)

(a) What are bridges and gateways? Explain their function briefly.

(b) Discuss the functions of various layers of TCP/IP protocol.

(c) What do you mean by Classes and objects? Explain with suitable examples and how objects and classes are created in Java.

(d) Discuss various primitive data types supported by Java.

(e) Write a function for comparing two given strings. [Do not use pre-defined classes in Java.]

(f) What is Package in Java? What is method in Java? Also explain the scope of method with example.

3. Attempt any two parts of the following: (10x2=20)

(a) What is the structure of JDK directory? Write a program in Java to demonstrate the arithmetic operators (+, -, * and /) on complex numbers. For each arithmetic operator write separate function and creat appropriate class for complex numbers.

(b) (i) Write a short note on operator precedance in Java.

(ii) Discuss various control flow statements with proper syntax in Java.

(c) (i) What do you mean by an abstract class? How abstract classes are implemented in Java ? Discuss with an example using Java.

(ii) Write a short note on exception handling in Java.

4. Attempt any two parts of the following : (10x2=20)

(a) (i) What is a Java Bean? Discuss the advantage of Java Bean.

(ii) What do you mean by JAR files ? Discuss.

(b) Write a program in Java to demonstrate communication using TCP/IP i.e. using sockets :

Write separate code for a server and client program. The program should display the contents of the file specified in a server on to the client.

(c) (i) Define RMI. Give a simple client - server application using RMI.

(ii) Discuss the role of a dialog box. How it is created?