2071

B.A./B.Sc. (General) Fourth Semester

Information Technology

Paper - B: Data Networks and Web Based Applications

Time allowed: 3 Hours   Max. Marks: 65

NOTE: *Attempt* _five_ *questions in all, including Question No. IX (Unit-V) which is compulsory and selecting one question each from Unit I - IV.*

x-x-x

UNIT - I

I.   Differentiate the following: -

   a) TCP and UDP

   b) Addressing issues in Data Link Layer and Network Layer

   c) Packets and Frames   (5,4,4)

II.   a) What is the role of<IMG> tag in HTML? Create a webpage having three images. Also explain the main attributes used with <IMG> tag.

   b) What is the role of Frames in a webpage? Explain tags and attributes used for creating Frames.   (6,7)

UNIT - II

III.   a) What is CSS? How can you incorporate inline style information in an HTML document? Illustrate with example.

   b) Explain the role of JavaScript in making interactive WebPages with the help of examples.   (6,7)

IV.   Describe the following in JavaScript:-

   a) Strings

   b) Arrays   (6,7)

UNIT - III

V.   Describe the following in Java:-
   a) Java Vs C++
   b) Bytecode
   c) Primitive Data Types   (4,4,5)

P.T.O.

VI.   a) Explain the concept of Base class and Derived Class in Java. How super keyword is used to call super class Constructor? Give examples.

b) Explain the role of 'final' keyword in Java. Give examples.   (6,7)

UNIT - IV

VII.   a) How a Package is defined in Java? How is a class or interface added to a package?

b) How does Interface support Multiple Inheritance? Explain.   (6,7)

VIII.   a) How are try and catch blocks defined in Java? What is the role of finally block? When and how is it used? Give a suitable example.

b) Explain life cycle of a Thread with a neat diagram. Also explain the methods used in its life cycle.   (6,7)

UNIT - V

IX.   Write short answers of the following:-

     a)   What are the drawbacks of Star topology?   (2)

     b)   Differentiate between WWW and Internet.   (2)

     c)   How do symbols "==" and "===" differ in JavaScript?   (2)

     d)   State any two differences between class and interface.   (2)

     e)   What is JVM?   (2)

     f)   Name any four protocols used at application layer   (2)

     g)   Describe <Applet> tag.   (1)

x-x-x