B.A./B.Sc. (General) 4ᵗʰ Semester

(2054)

INFORMATION TECHNOLOGY

Paper–B : Data Networks and Web Based Applications

Time Allowed : Three Hours]   [Maximum Marks : 65

Note :—Attempt **FIVE** questions in all by selecting **ONE** question from each unit. Entire Q. No. IX is compulsory.

UNIT—1

I.   (a) What is a Search Engine ? How does it work ? Name popular Search Engines.

     (b) Explain OSI Reference Model briefly.   6,7

II. (a) What is the role of <IMG> tag in HTML ? Explain the main attributes used with <IMG> tag.

     (b) Describe the use of various types of links in HTML. Also explain the tags and their attributes used for creating links.   6,7

UNIT—2

III. (a) What are Cascading Style Sheets ? Describe merits and demerits of in-line style sheets.

(b) Compare and contrast any two looping controls used in JavaScript with examples. 6,7

IV. (a) How events are managed in JavaScript ? Design a webpage which takes username and password from the user and checks their validity.

(b) Write short note on the Math and Date objects used in JavaScript. 6,7

UNIT—3

V. (a) Explain various data types available in Java.

(b) Explain the use of Abstract classes in Java.

(c) Explain the use of final keyword in Java. 5,4,4

VI. (a) Explain the concept of Constructors in Java. Also explain how super keyword is used to call super class Constructor ? Give examples.

(b) What is Dynamic method Dispatch ? Explain briefly with example. 6,7

UNIT—4

VII. (a) What is the use of an Interface ? How is it different from a class ? Explain its implementation in Java.

(b) Explain the role of Packages in Java. How are they created and used ? 6,7

VIII. (a) What is an Exception ? How is it caught in Java ? Give a suitable example.

(b) Explain the various ways to create threads in Java with the help of suitable examples. 6,7

(Entire Question is Compulsory)

IX. Write short answers :

(i) Describe any two benefits of Computer Networks.

(ii) Differentiate between TCP and UDP.

(iii) Explain terms : Cellpadding and Cellspacing.

(iv) What is the use of alert() dialog box in JavaScript ?

(v) How does parseFloat() work in JavaScript ?

(vi) What is the use of static classes in Java ?

(vii) How does JVM work ? 6×2+1