

(i) Printed Pages: 2

Roll No. ....

(ii) Questions : 9

Sub. Code : 

0	3	7	8
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Exam. Code : 

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**B.A./B.Sc. (General) 4<sup>th</sup> Semester**

**1048**

**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 section. Entire Question No. 9 is compulsory.

**SECTION—A**

1. (a) Differentiate between the Protocols, Interfaces and Layers. Explain with the help of a diagram.
- (b) What are the various layers in TCP/IP reference model ? Explain the need for each of them. 6,7
2. (a) Name and explain features of any commonly used Search Engine.
- (b) What is a Form ? Explain its main attributes and tags to create commonly used controls of a Form. Also create a web page containing a form where a user can submit his name, salary and gender. 6,7

**SECTION—B**

3. (a) How can you incorporate inline style information in an HTML document ? Illustrate with an example. What are the disadvantages of using inline styles ?
- (b) Discuss the role of JS as 'smart webpage developer'. How does it make webpage interactive ? 6,7

4. (a) What is event handling ? Explain the event handling in JavaScript.  
(b) Write a JS code block, which checks the contents entered in the form's text control. If the text entered is in upper case, convert it to lower case and vice versa. 6,7

### SECTION—C

5. (a) Name and explain the various Data types in Java.  
(b) Explain an abstract method, instance method and class method. Also explain the scope of variables. 6,7
6. (a) What are constructors ? Explain the purpose and uses of constructors.  
(b) Differentiate between String and String Buffer Class. Discuss various methods which are applicable on String Buffer Class. 6,7

### SECTION—D

7. (a) Explain the commonly used packages in Java. How are they imported in a Java program ?  
(b) Define Interface. How is it implemented in Java ? Give examples. 6,7
8. (a) List some of the most common types of exceptions that might occur in Java. Write a program to accept two values from the user and catch arithmetic and IO exception.  
(b) What is multithreading ? Explain the various ways to create threads in Java. Give examples. 6,7

### SECTION—E

9. Write short answers :
- (i) Explain any three attributes of <body> tag.
  - (ii) How date object is created in JavaScript ?
  - (iii) Why and how 'super' keyword is used in Java ?
  - (iv) What is the role of 'final' keyword in Java ?
  - (v) How abstract class is different from an Interface ?
  - (vi) Differentiate between an applet and an application.
  - (vii) What is Deadlock ? 6×2+1