FACULTY OF INFORMATICS
B.E. 2/4 (IT) II Semester (New) (Main) Examination, May/June 2012
WEB TECHNOLOGIES

Time : 3 Hours]

[Max. Marks : 75

Note : *Answer* **all** *questions of Part* **A**, *answer* **five** *questions from Part* **B**.

PART – A   (25 Marks)

1. Explain the Internet Architecture with a neat diagram.   3

2. Describe the functionality of the following tags :   2
   i) Anchor (A)
   ii) IMG
   iii) META
   iv) HR

3. Write a HTML document to input two dates and find the duration (number of days) between them. The date, month and year are input in three select boxes.   3

4. Explain the procedure how a CGI script works.   3

5. Discuss various file reading handling operations in Perl.   2

6. Write regular expressions in Perl to match the following patterns :   2
   i) aaa–bbb@ccc.dd.ee
   ii) 222(222)222

7. Discuss XPath Axes.   3

8. What purpose the preg_match () function is used in PHP ?   2

9. Discuss various any three Session methods in JSP.   3

10. Explain about cookies in Java Servlets.   2

(This paper contains 2 pages)   1   P.T.O.

PART – B   **(50 Marks)**

11. a) Create an HTML document and script for AB industries. The HTML document should display a web page that allows the user to enter the name of the item in inventory the quantity of the item in inventory and how many units of the item can be packed in box for shipping. The script should calculate the number of full boxes that can be packed from the quantity on hand, and the quantity of items left over. It then should display the form data and the results of the calculations on a web page.   **6**

    b) Write a program that uses the translation operator to remove repeated instances of the tab character and then replaces the tab character with a space character.   **4**

12. a) Explain how to display XML documents with CSS. Give an example code.   **5**

    b) How to transform XML into XHTML using XSLT ? Give an example.   **5**

13. a) Write a Perl script to check whether the given information in the form is valid or not, the form consists of name, email id, gender, address with pin code, and phone number. Your script should check all the fields provided in form. Example : For the pin code input is 560003 (6 digits only) then cursor goes to next field, otherwise (pin code with characters, more then 6 digits and special symbols) display error message.   **5**

    b) What is CGI ? Explain the form processing procedure using CGI.   **5**

14. a) Explain the Life Cycle of a servlet with example programs.   **5**

    b) What is session tracking in JSP ? Explain how to manage sessions in JSP.   **5**

15. a) Define file. Explain various file parsing functions in PHP.   **5**

    b) Explain how to access database with JDBC. Give an example code.   **5**

16. a) What is session ? How to create user sessions in JSP ? Discuss with an example.   **5**

    b) Write a JavaScript program that generates 10 random math problems. Each math problems should consists of three operands (random integers between – 10 and 10, inclusive) and two operators (randomly from +, –, ×, /, and %). For example, a problem might be –4 + 7% 3. Display each problem in a prompt box, and allow the user to enter an integer representing the value of the problem (following standard JavaScript operator precedence rules). After all ten problems have been answered ; output the number of correct answers.   **5**

17. Write short note on the following :   **10**

    a) XML Processors.

    b) JSP Cookies.

    c) HTTP Request header.

    d) Web Servers.

1,100