

Programming the Web - December 2015

TOTAL MARKS: 100

TOTAL TIME: 3 HOURS

- (1) Question 1 is compulsory.
- (2) Attempt any **four** from the remaining questions.
- (3) Assume data wherever required.
- (4) Figures to the right indicate full marks.

1 (a)What is MIME? Explain its specifications. (4 marks)

1 (b)Write the General form of HTTP request and response. Explain. (8 marks)

1 (c)Illustrate with an example, each of the following XHTML tags. (8 marks)

- <pre>
- <blockquote>
- <a>
- <meta>

2 (a)Why are lists used on web pages? With an example, explain different types of lists available in XHTML. (6 marks)

2 (b)Explain with an example that concept of framesets and frames in building web pages. (6 marks)

2 (c)What are selector forms? Explain with example different types of selector forms. (8 marks)

3 (a)With the help of an example, explain JavaScript's screen output and keyboard input methods. (8 marks)

3 (b)Explain the following objects available in JavaScript. List at least 3 methods available with them. (8 marks)

- Math object
- Number object
- Date object

iv) Array object

3 (c) Write a JavaScript to read and email ID from the user using prompt and validate it. It should contain a '@' and '.' (dot). (4 marks)

4 (a) Discuss any two methods of Element Access in JavaScript. Give examples for both. (6 marks)

4 (b) With the help of an example, explain any one event associated with the following elements (i) Body (ii) Button (iii) Textbox. (6 marks)

4 (c) Explain different techniques to position elements in XHTML. What are the standard values for visibility property? How are they used? (8 marks)

5 (a) What is DTD? What is the difference between External and Internal DTD's? Write the syntax and example for declaring elements, Attributes and Entities in a DTD. (8 marks)

5 (b) Illustrate with the help of a diagram the XSLT processing. (6 marks)

5 (c) Declare an XML document containing data of 3 Employee's (Emp_ID, Emp_Name, Emp_Desig, Emp_Age, Emp_Phone, Emp_Address) and display this XML data using CSS, with following rules:
Emp_ID in front-size 28 pts and color-Red
Emp_Name and Emp_Desig in front size 18 pts and color - Blue
Emp_Age, Emp_Phone and Emp_Address in front size 15pt and color - Black. (6 marks)

6 (a) Write a Perl program to read a number from standard input device and check if it is a prime number. Display appropriate messages. (6 marks)

6 (b) How are Array's declared in Perl? Demonstrate the use of 'foreach' statement on Perl Array's. (6 marks)

6 (c) Write an XHTML and Perl program, the XHTML should define system containing Book_AccNo, Book_Name, Book_Author, Book_Edn, and Book_Publish as textboxes and a submit and reset button. On submission to a Perl CGL, the Perl program should extract the book information and store in into the database in 'Book' table. Handle exceptions appropriately. (8 marks)

7 (a) Explain different functions available in php for handling files. Give examples for opening, closing, reading and writing to files. (8 marks)

7 (b) What is session tracking in web pages? With the help of an example php program demonstrate how session can be used to track number of web pages visited in a session. (8 marks)

7 (c) What is a Cookie? Why are they used? Which function is used in php to set a Cookie? Give an example and syntax. (4 marks)

8 (a) Explain keyboard input and screen input functions in Ruby. (4 marks)

8 (b) Write a Ruby program to declare an array, store in it 10 elements of type integer. Use 'for - in' statement to sum the array elements and display the sum. (6 marks)

8 (c) With a help of a diagram explain how rails responds to simple web requests. (4 marks)

8 (d) Write a note on the concept of classes and inheritance in Ruby. (6 marks)