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12SCN253

**Second Semester M.Tech. Degree Examination, June/July 2013**  
**Web Engineering**

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions.**

- 1
  - a. List the categories of web application and explain about ubiquitous website with appropriate examples. (07 Marks)
  - b. What is the reason for evolution in web application? (03 Marks)
  - c. Explain the principles for requirement engineering of web application. (10 Marks)
- 2
  - a. Draw a neat diagram for three dimension requirement of web application modeling and explain about hypertext structure modeling concept with object oriented hypermedia modeling method (OOH). (10 Marks)
  - b. Draw a neat diagram of content management architecture of web application and explain about web application architecture and web platform architecture specific with example each. (10 Marks)
- 3
  - a. What are the problems and restrictions faced in integrated web design? (05 Marks)
  - b. What is the purpose of interaction design? Explain about distributed cross-corporate web application. (05 Marks)
  - c. What is web service? Explain about web service description language? (05 Marks)
  - d. Why middle ware technology is needed in web application? (05 Marks)
- 4
  - a. Which are the most important specifics and challenge in web application testing based on the application characteristics. (06 Marks)
  - b. What are the benefits and drawbacks of automated testing? (04 Marks)
  - c. Write a short note on search engine ranking and web server log file. (10 Marks)
- 5
  - a. Explain the specific risks in web engineering. (10 Marks)
  - b. Draw a neat diagram of order event in extreme programming project sequence of release and explain, does extreme programming meet the requirement of web application development. (10 Marks)
- 6
  - a. What characterize the usability of web application? Explain about confidence-generating measures in design guidelines. (10 Marks)
  - b. Assume a webserver consisting of one CPU and two disks the system has been observed by measurement of 2 hours the total of 7200 request has been completed during this period. The utilization of CPU = 20% disk1 = 30%, disk2 = 55%. Determine the service demand per component ( $x$ ,  $D_{cpu}$ ,  $D_{disk1}$  and  $D_{disk2}$ ). (05 Marks)
  - c. What is performance? Explain the steps for basic approach to performance analysis. (05 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
 2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.

- 7 a. Perform encryption and decryption using RSA algorithm with given data  $p = 5$ ,  $q = 11$ ,  $e = 3$  and  $M = 8$ . Find cipher text  $C$  and also  $M$  from decryption, step by step. (10 Marks)
- b. Explain the specification of semantic web application. (10 Marks)
- 8 a. Difference between traditional software project management and web project management. (05 Marks)
- b. List the challenges faced during the launch of web application. (05 Marks)
- c. Explain the process to check whether rational unified process meet the requirement of web application. (05 Marks)
- d. Draw a neat diagram of JSP – model – 2 implemented in struts and explain the workflow. (05 Marks)

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