STIW3043

UUM
Universiti Utara Malaysia

FINAL EXAM
SECOND SEMESTER SESSION 2011/2012

COURSE CODE / NAME : STIW3043 WEB ENGINEERING
DATE : 21 JUN 2012 (THURSDAY)
TIME : 09.00 A.M. – 11.30 A.M. (2 ½ HOURS)
VENUE : DMS

INSTRUCTION :

1. This book script contains SECTION A (14 questions), and SECTION B (1 question) in SEVEN (7) printed pages excluding the cover page.
2. Answer ALL QUESTIONS in the space provided.
3. You are NOT ALLOWED to remove the exam script from the examination hall.

MATRIC NO : ___________________________  
(with word)  
(with number)
IDENTIFICATION CARD NO. :

LECTURER : ___________________________________________________________________

GROUP :  [ ]  TABLE NO. :  [ ]

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SECTION A STRUCTURED QUESTIONS (79 MARKS)

1. Explain briefly the following web application attributes: aesthetics, security, and immediacy.

(6 marks)

2. Give a definition of web engineering.

ii. Explain briefly TWO (2) reasons why do we need to use agile approach in web engineering process.

(6 marks)

3. State THREE (3) reasons why do we need to apply incremental development in web development process.

(3 marks)
4. There are **TWO (2)** methods to estimate effort and time in web engineering process. Name the methods and explain briefly each of them. (6 marks)

5. In order to model the functionality delivered by a web application, a modeling language should provide several capabilities. Explain briefly **THREE (3)** of them. (6 marks)

6. At the end of analysis modeling, we are going to produce four kind of outputs. Explain briefly **THREE (3)** of them. (6 marks)
7. Oisina and his colleagues have prepared a "quality requirement tree" that identifies a set of technical attributes. Give **FOUR (4)** technical attributes and its example.  

(6 marks)


(6 marks)

9. Discuss briefly **TWO (2)** tasks that will be played by each layer in Model View Controller (MVC) architectural pattern.  

(6 marks)
10. Content Management Systems (CMS) are change management tools. Explain THREE (3) generic benefits that might be provided by the system. (6 marks)

11. In terms of the level of granularity, patterns can be described at THREE (3) levels. Describe briefly each of them. (6 marks)
12. What is Open source software? There are some questions to be considered in order to choose between open source and proprietary web engineering technology and tools. Give **TWO (2)** of them.  

(6 marks)

13. Describe **THREE (3)** important objectives of conducting content testing on web application.  

(6 marks)

14. Explain **ONE (1)** difference between change management and content management.  

(4 marks)
SECTION B (21 MARKS)

1. You are working for a Web development company and have been given a contract to develop a Web-based Task Management System (TMS) for a local company. The users of this Task Management System are the project managers and project developers of this local company. Project managers will be able to view task list; view task reports, update tasks; allocate new tasks to developers; assign start date and complete dates of tasks to developers. Individual developers will be able to view his/her tasks, send task report to project manager, report task complete date. Based on this scenario, answer the following questions:
   a. List TWO (2) of user classes.  (2 marks)

   b. Create a simple set of usage scenario for each uses classes.  (8 marks)

   c. List of identification of THREE (3) key increments  (6 marks)
STIW3043 Web Engineering

d. Choose one increment at question 1 c. and develop an interaction model. (5 marks)