Register Number: ……..

MCA DEGREE EXAMINATIONS: APRIL/MAY 2014

(Regulation 2009)

Third Semester

MASTER OF COMPUTER APPLICATION

MCA512: Software Engineering

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 2 = 10 Marks)

1. What do you mean by agile modeling?
2. State the important principles of SCRUM process model.
3. What does a system engineering model accomplish?
4. State the importance of requirement negotiation.
5. What are the elements of design models?
6. What is the benefit of modular design?
7. Why software testing is important?
8. Differentiate between alpha and beta testing.
9. Write down the elements of configuration management system.
10. What is software reliability?

PART B (5 x 16 = 80 Marks)

11. a) Compare the waterfall, incremental and spiral model based on the following factors: methodology, advantages and disadvantages. (Draw a table to show the comparison).

(OR)

b) (i) What is unified process? Explain the steps involved in it. (8)

(ii) Explain the important aspects of Adaptive Software Development model. (8)

12. a) (i) Elaborate the steps needed for initiating the requirements gathering process. Give suitable example. (8)

(ii) Describe the data modeling concept in detail. (8)

(OR)

b) (i) What are use cases? Explain how to develop effective use cases. (8)

(ii) Name and explain the various elements of the analysis model. (8)

13. a) (i) Explain the concept of designing class-based components. (8)

(ii) Discuss in detail the process for analyzing and designing a user interface. (8)

(OR)

b) Define Software architecture. Discuss the taxonomy of architectural design.

14. a) List the different types of testing used in software engineering and write the significance of each testing.

(OR)

b) (i) What is a test case? Write any six test cases for a library management system. (8)

(ii) Compare conventional and object oriented test strategies. (8)

15. a) (i) Explain and highlight the issues in software configuration and management. (8)

(ii) Explain the standards associated with software quality. (8)

(OR)

b) (i) Differentiate quality control from quality assurance. (4)

(ii) Technical reviews are used for software quality control. Elaborate on the meeting procedure, reporting and record keeping procedures as well as guidelines to be followed when conducting reviews. (12)

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