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15CS42

Fourth Semester B.E. Degree Examination, Dec.2018/Jan.2019
Software Engineering

Time: 3 hrs.　　　　　　　　　　　　　　　　　　　　　　Max. Marks: 80

**Note: Answer any FIVE full questions, choosing
ONE full question from each module.**

Module-1

1　a.　Explain briefly software engineering ethics.　　　　　　　　　　**(04 Marks)**
　　b.　With a suitable block diagram, explain water fall model.　　　　　**(06 Marks)**
　　c.　Explain requirements engineering processes with suitable diagram.　**(06 Marks)**

OR

2　a.　With the help of neat diagram, explain insulin pump control system.　**(04 Marks)**
　　b.　With a neat diagram, explain Boehm's spiral model.　　　　　　**(08 Marks)**
　　c.　Explain Ethnography in detail.　　　　　　　　　　　　　　　**(04 Marks)**

Module-2

3　a.　Draw a context model for Patient Management System. How the interactions are modeled?
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　(06 Marks)
　　b.　With the help of a neat state diagram, illustrate the working of a microwave oven.　**(06 Marks)**
　　c.　What is Model Driven Engineering? State the three types of abstract system models produced.　　　　　　　　　　　　　　　　　　　　　　　　　**(04 Marks)**

OR

4　a.　Illustrate how design models are the bridge between system requirements and the implementation of a system. Draw a sequence diagram describing data collection of weather information system.　　　　　　　　　　　　　　　　　　　　**(05 Marks)**
　　b.　What is design pattern? Explain four elements of design pattern.　　**(05 Marks)**
　　c.　Discuss the implementation issues important in software engineering.　**(06 Marks)**

Module-3

5　a.　Explain development testing. Explain the three levels of granularity carried out in testing.
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　(04 Marks)
　　b.　Discuss test driven development and state the benefits of test driven developments.
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　(04 Marks)
　　c.　What is user testing? Explain six stages of acceptance testing process.　**(08 Marks)**

OR

6　a.　List and explain the 'Lehman's Law' concern to system change.　　**(06 Marks)**
　　b.　Explain software reengineering process with suitable diagram. State the activities of reengineering process.　　　　　　　　　　　　　　　　　　　**(06 Marks)**
　　c.　Explain the four strategic options of legacy system management.　　**(04 Marks)**

Module-4

7　a.　List and explain the factors affecting software pricing.　　　　　　**(05 Marks)**
　　b.　Explain in detail plan driven development approach to software engineering.　**(05 Marks)**
　　c.　Explain the COCOMO – II estimation model.　　　　　　　　　**(06 Marks)**

OR

8 a. Explain different types of software standards and mention their importance. **(05 Marks)**
   b. Explain how reviews and inspections are used to check the quality of project delivery.
      (06 Marks)
   c. List and explain the key stages in software component analysis. **(05 Marks)**

Module-5

9 a. Explain the ways of coping with change and reduction of rework cost. **(06 Marks)**
   b. Explain the practices involved in the extreme programming. **(10 Marks)**

OR

10 a. State the principle of agile methods. **(05 Marks)**
   b. Explain plan drive and agile development approach for software development. **(05 Marks)**
   c. Write a note on pair programming. **(06 Marks)**

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