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15CS42

Fourth Semester B.E. Degree Examination, June/July 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. With the help of block diagram and activity model explain an insulin pump control system. Also comment on the essential high level requirements that this system must meet. (08 Marks)
- b. Explain incremental development process in detail. Also discuss the benefits of this method compared to waterfall model. (08 Marks)

OR

- 2 a. With a neat diagram explain the different stages requirement engineering process. What are its benefits? (08 Marks)
- b. Write a short note on : (04 Marks)
- (i) Interviewing (ii) Ethnography
- c. Explain software requirement document. (04 Marks)

Module-2

- 3 a. Explain the sequence diagram for view patient information. (05 Marks)
- b. Explain use case models with example. (04 Marks)
- c. Explain the state diagram of a microwave oven with neat representation of sketch. (07 Marks)

OR

- 4 a. Describe the process of Rational Unified process in detail. (08 Marks)
- b. Describe the different proposals made about how to identify object classes in object-oriented systems. Also mention different objects identified for weather station. (08 Marks)

Module-3

- 5 a. Explain test driven development. Also mention the benefits of the same. (08 Marks)
- b. With the help of neat diagram, explain the different stages of acceptance testing process. (08 Marks)

OR

- 6 a. Define the different Lehman's laws concerning system change. (08 Marks)
- b. Explain the process of software reengineering. Also mention the advantages of the same. (08 Marks)

Module-4

- 7 a. What is the use of project plan? Describe the different sections of project plan for plan driven development. (08 Marks)
- b. What is the purpose of program inspection? Explain different fault classes and inspection checks done during program inspection. (08 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.

OR

- 8 a. Give the description of different static software product metrics. (08 Marks)
b. What is software pricing? Describe the different factors affecting software pricing. (08 Marks)

Module-5

- 9 a. Explain the process of prototype development. (08 Marks)
b. With a neat diagram, explain Boehm's spiral model. (08 Marks)

OR

- 10 a. Define any eight extreme programming practices. (08 Marks)
b. Explain the process of scrum. Also mention the different key characteristics of this process. (08 Marks)

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