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10IS51

Fifth Semester B.E. Degree Examination, Feb./Mar. 2022

Software Engineering

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, selecting at least TWO questions from each part.***PART - A**

- 1 a. What are the attributes of a good software? (05 Marks)
b. Explain any five IEEE code of ethics. (05 Marks)
c. With a neat diagram, briefly explain systems engineering process. (10 Marks)
- 2 a. What are critical systems? Explain the different types of critical systems with example. (08 Marks)
b. Explain the four principal dimensions of dependability. (04 Marks)
c. Write short notes on evolutionary development. (08 Marks)
- 3 a. Give the structure of a requirements document. (10 Marks)
b. What are the checks and validation techniques used during requirements validation? (10 Marks)
- 4 a. What is a dataflow model? Explain the data flow diagram of an insulin pump. (10 Marks)
b. What is project plan? Explain the different sections of project plan. (10 Marks)

PART - B

- 5 a. Explain the different types of event driven systems. (10 Marks)
b. Explain generalization hierarchy or inheritance using suitable example. (05 Marks)
c. What is a sequence diagram? Explain it with an example. (05 Marks)
- 6 a. What are the principles of Agile methods? (05 Marks)
b. With a diagram, explain Rapid Application Development Environment or RAD environment. (05 Marks)
c. Explain Lehman's Laws of Program evolution. (10 Marks)
- 7 a. Explain cleanroom strategies and cleanroom software development process. (10 Marks)
b. Explain Black Box Testing with an example. (10 Marks)
- 8 a. What are the key factors that influence group communications? (05 Marks)
b. Explain human needs hierarchy for motivating people. (05 Marks)
c. What are the different cost estimation techniques? (05 Marks)
d. Mention the factors that affect software pricing. (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.