



10IS51

Fifth Semester B.E. Degree Examination, Jan./Feb. 2023
Software Engineering

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

PART – A

- 1 a. What is Software Engineering? List and explain the four important attributes which all software products should have. (10 Marks)
b. What is a Legacy System? List and explain the different components of a legacy system in detail with a neat block diagram. (10 Marks)
- 2 a. What is critical system? Explain the concept of system dependability and their dimensions. (10 Marks)
b. What is software process model? Explain any two software process models in detail with neat diagram. (10 Marks)
- 3 a. What is a software requirement? What are the differences between functional and nonfunctional requirements? (10 Marks)
b. What are use cases? Using your knowledge of how an ATM is used, develop a set of use cases that could serve as a basis for understanding the requirements for an ATM system. (10 Marks)
- 4 a. What is a dataflow model? Based on your experience with insulin pump, draw a data – flow diagram modeling the data processing involved when the machine is under usage. (10 Marks)
b. What is Project Management? List and explain the management activities in detail. (10 Marks)

PART – B

- 5 a. What is modular decomposition? Explain the function oriented pipelining in detail with respect to invoice processing system. (10 Marks)
b. What are the differences between objects and object class? List and explain the number of stages that we use for object oriented design. (10 Marks)
- 6 a. What is Agile method? List and explain the principles of agile methods. (10 Marks)
b. What is software evolution process? Explain with the help of neat block diagram. (10 Marks)
- 7 a. What is V & V process? Explain the two complementary approaches within V & V process for system checking and analysis in detail. (10 Marks)
b. What is system testing? Explain the concept of release testing with diagram. (10 Marks)
- 8 Write a short notes on:
a) Selecting staff
b) Software cost estimation techniques
c) Requirements elicitation and analysis
d) Rational unified process. (20 Marks)

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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.