

Code No: 135BM

**R16**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech III Year I Semester Examinations, May/June - 2019**

**SOFTWARE ENGINEERING**

**(Common to CSE, IT)**

**Time: 3 hours**

**Max. Marks: 75**

**Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART - A**

**(25 Marks)**

- 1.a) Define software engineering. [2]
- b) List evolutionary process models. [3]
- c) Differentiate between user requirement and system requirement. [2]
- d) List the various types of feasibility studies. [3]
- e) What are the goals of the design process? [2]
- f) Define software architecture. [3]
- g) What is meant by smoke testing? [2]
- h) List the metrics for source code. [3]
- i) Give the different categories of risks. [2]
- j) What is meant by software review? [3]

**PART - B**

**(50 Marks)**

2. Discuss managers myths about software development and their effect on the practitioners performance as well as on overall outcome. [10]

**OR**

3. What is software process? What is need of software process improvement? Discuss capability maturity models. [10]

4. "The functional requirements specification of a system should be both complete and consistent". Substantiate this statement with relevant examples. [10]

**OR**

- 5.a) Draw a context level model for a web-based food- ordering system such as "Swiggy".
- b) Discuss the main characteristics of data model for requirement engineering. [5+5]

6. How to translate the analysis model into the design model? Explain with an example scenario. [10]

**OR**

- 7.a) Explain how to map data flow into a software architecture?
- b) Explain the design of class based components. [5+5]

- 8.a) Discuss the process of debugging.  
b) What is the need of beta testing? [5+5]
- OR**
- 9.a) Explain the metrics for software quality.  
b) Explain about the test strategies for connectional software. [5+5]
- 10.a) Elaborate on risk projection steps.  
b) Provide the format of risk information sheet. [5+5]
- OR**
11. Explain the activities of software quality assurance group to assist the software team in achieving high quality. [10]

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