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Roll No. : .....

**C033514(033)**

**B. Tech. (Fifth Semester) Examination,**

**Nov.-Dec. 2021**

**AICTE (New Scheme)**

**(Information Technology Engg. Branch)**

**SOFTWARE ENGINEERING and PROJECT  
MANAGEMENT**

***Time Allowed : Three hours***

***Maximum Marks : 100***

***Minimum Pass Marks : 35***

***Note : Attempt all questions. Part (a) is compulsory  
and attempt any two parts from (b), (c) &  
(d) in each unit.***

**Unit-I**

1. (a) What is the prime objective of software engineering?

Define the software engineering paradigm.

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- (b) Explain the iterative waterfall and spiral model for the software life cycle and discuss various activities in each phase. 8
- (c) Explain evolutionary process model in detail. 8
- (d) What are different types of Angile Methodology? 8

**Unit-II**

- 2. (a) What is Software Re-engineering? 4
- (b) Explain requirement engineering. What are the phases of requirement engineering? When is requirement engineering assumed to be complete? 8
- (c) What is SRS? Discuss five characteristics of good SRS. Develop a complete SRS document for your project identified in the laboratory. 8
- (d) What is the difference between Verification and Validation? 8

**Unit-III**

- 3. (a) List some software analysis & design tools. 4

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- (b) Explain with example top-down and bottom-up approach in software design. 8
- (c) What are the purposes of Data Flow diagrams, Entity-Relationship diagrams? Give an example diagram of each. 8
- (d) Explain Walkthroughs and Inspections in details. 8

**Unit-IV**

- 4. (a) What are software project estimation techniques available? 4
- (b) What is System Configuration Management? Describe various processes involved in SCM. 8
- (c) What are the important types of risk that a project might suffer from? How would you identify the risk that a project may be susceptible to during the project planning stage? 8
- (d) What are the responsibilities of a Software Project Manager? 8

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**Unit-V**

5. (a) What is Software Testing? 4
- (b) What do you mean by Test Case? Describe top-down and bottom-up testing strategies along with their advantage and disadvantage. 8
- (c) Define stress testing. Why is stress testing applicable to only certain types of systems? 8
- (d) Differentiate between black box testing and white box testing. 8