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Question Paper Code: R5D01

B.E./B.Tech. DEGREE EXAMINATION, NOV 2025

Fifth Semester

R21UCB501- SOFTWARE ENGINEERING

Computer Science and Business systems

(Regulations R2021)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Identify the human factors considered for an agile software development. CO1-U
2. List the pros and cons of iterative software development model. CO1-U
3. What are the objectives of Requirement Analysis? CO1-U
4. Name the Evolutionary Process models. CO1-U
5. List two principles of a software design. CO1-U
6. Give the various types of architectural styles with example. CO1-U
7. Distinguish between software failure and fault. CO1-U
8. List the objectives of testing. CO1-U
9. Define Risk. CO1-U
10. Define software quality. CO1-U

PART – B (5 x 16= 80 Marks)

11. (a) Define Software life cycle. List all life cycle models and explain spiral model with a neat diagram CO1- U (16)
- Or
- (b) (i) Explain at least one scenario where CO1- U (4)
 - (a) RAD model would be applicable and not the waterfall model. (4)
 - (b) Waterfall model is preferable compared to all other models. (8)
- (ii) Explain about Agile software development .

12. (a) Apply Data flow diagram for a "Library Management System". CO2- App (16)
 Or
 (b) Apply requirement elicitation concept and explain the various activities performed in requirements elicitation of a watch system that facilitates to set time and alarm system. CO2- App (16)
13. (a) Explain the basic concepts of software design. CO1- U (16)
 Or
 (b) Explain in detail about the architectural design and illustrate its styles in detail. CO1- U (16)
14. (a) Discuss on CO1- U (8)
 (i) Unit testing & Regression Testing. (8)
 (ii) Validation testing & Acceptance testing.
 Or
 (b) (i) Describe about Debugging. CO1- U (8)
 (ii) Write a note on software implementation techniques. (8)
15. (a) Explain COCOMO models CO1- U (16)
 Or
 (b) (i) Describe basic principles of software project scheduling CO1- U (16)
 (ii) Explain the relationship between people and effort with diagram.