

**R15****Code: 15A05401****B.Tech II Year II Semester (R15) Supplementary Examinations December 2017****SOFTWARE ENGINEERING**

(Common to CSE and IT)

Time: 3 hours

Max. Marks: 70

**PART – A**  
(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- What is unified process?
  - Define product and process.
  - Explain requirements gathering.
  - Discuss about requirements modeling.
  - What is architecture Genres?
  - Define Architecture Design.
  - What are golden rules in user interface design?
  - What is WebApp design?
  - Define validation testing.
  - What is system testing?

**PART – B**

(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 (a) What is waterfall process model and discuss about its reasons for failure?  
(b) Describe about personal and team process models.

**OR**

- 3 Explain and contrast perspective process models and iterative process models.

**UNIT – II**

- 4 (a) Explain about flow oriented modeling and its consequences.  
(b) Discuss about requirement modeling for WebApps.

**OR**

- 5 Discuss about Data Modeling Concepts and Class-Based Modeling.

**UNIT – III**

- 6 Explain the following:  
(a) Software architecture.  
(b) Architecture genres.  
(c) Architecture styles.

**OR**

- 7 Discuss various steps involved in component based development.

**UNIT – IV**

- 8 (a) Explain about interface design steps.  
(b) Explain the steps involved in WebApp Interface Design.

**OR**

- 9 Explain about Navigation Design and Component-Level Design.

**UNIT – V**

- 10 (a) Explain about the importance of Internal and External testing.  
(b) Compare white box testing and white box testing.

**OR**

- 11 Explain about Object-Oriented Testing Strategies and discuss its examples.

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**PART – A**  
(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- Name the different approaches to software process assessments.
  - How does an incremental model differ from prototyping?
  - State the need for requirements gathering.
  - Draw the class diagram for sensor.
  - Explain data design.
  - What are constrained dependencies?
  - State the three golden rules on interface design.
  - What is the fork & join in use case?
  - What is the difference between deep structure testing and surface structure testing?
  - Draw the state diagram for the account class.

**PART – B**  
(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- Explain various characteristics of software.
  - Explain unified process and elaborate on the unified process work products.
- Explain personal and team process models.
  - Briefly discuss the agile process.

**UNIT – II**

- Draw an use-case diagram for buying a stock using an on-line brokerage account.

**OR**

- Why do we say that the analysis model represents a snapshot of a system in time?

**UNIT – III**

- Discuss various steps involved in component based development.

**OR**

- Explain architectural context diagram for the Safe Home security function.

**UNIT – IV**

- Explain about interface design steps.
  - Explain the steps involved in WebApp Interface Design.

**OR**

- Draw the Swim lane diagram for prescription refill function.

**UNIT – V**

- Discuss the importance of test strategies for conventional software.
  - Describe various functional and unit testing techniques in detail.

**OR**

- Explain about validation testing methodology.
  - Compare the block box testing with white box testing.

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**R15**

**Code: 15A05401**

**B.Tech II Year II Semester (R15) Regular Examinations May/June 2017**

**SOFTWARE ENGINEERING**

(Common to CSE and IT)

Time: 3 hours

Max. Marks: 70

**PART – A**  
(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) List the types of software process models.
  - (b) Demonstrate the examples of software.
  - (c) Explain domain requirements.
  - (d) What is use case? Explain.
  - (e) List out the steps for conducting component level design.
  - (f) What is software architecture?
  - (g) Write about interface design steps.
  - (h) What is architecture design?
  - (i) Compare verification and validation.
  - (j) Write a short note on Black box testing.

**PART – B**

(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 (a) Explain the evolving role of software.  
(b) Describe software myths? Discuss on various types of software myths and trust aspects of these myths.

**OR**

- 3 Explain and contrast perspective process models and iterative process models.

**UNIT – II**

- 4 (a) Discuss how requirements are elicited and validated in software project.  
(b) Discuss about various requirements modeling strategies.

**OR**

- 5 Give a brief view on patterns for requirements modeling and also requirement modeling in webapps.

**UNIT – III**

- 6 Explain the following:

- (a) Design process.
- (b) Design model.
- (c) Design concepts.

**OR**

- 7 Discuss various steps involved in component based development.

**UNIT – IV**

- 8 (a) Explain the rules of user interface design.  
(b) Explain the steps involved in WebApp Interface Design.

**OR**

- 9 Explain about Content Design and Architecture Design in detail.

**UNIT – V**

- 10 (a) Explain about the importance of test strategies in conventional software.  
(b) Compare white box testing and white box testing.

**OR**

- 11 Develop a complete test strategy for the safe home system. Document it in a test specification.

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**Code: 15A05401**

**R15**

**B.Tech II Year II Semester (R15) Regular & Supplementary Examinations May/June 2018**

**SOFTWARE ENGINEERING**

(Common to CSE and IT)

Time: 3 hours

Max. Marks: 70

**PART – A**  
(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- List the drawbacks of spiral model.
  - Differentiate between software process and project.
  - What are Scenarios?
  - What is Flow-oriented model?
  - What is software architecture?
  - Explain about taxonomy of architecture styles.
  - Describe the process in user interface design.
  - What is the component-level design?
  - Write any two strategic issues.
  - What is validation testing?

**PART – B**  
(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 (a) Explain about the evolving role of software.  
(b) Describe software myths. Explain various types of software myths.

**OR**

- 3 (a) Explain briefly about generic process model.  
(b) Discuss the process framework activities.

**UNIT – II**

- 4 Discuss 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.

**OR**

- 5 (a) Write the difficulty process for Eliciting and understanding requirements from system stakeholders.  
(b) Write a short note on requirements modeling strategies.

**UNIT – III**

- 6 (a) Explain the basic design principles.  
(b) Explain about component level design metrics.

**OR**

- 7 (a) Explain the design concepts in software engineering.  
(b) Explain about architecture design in detail.

**UNIT – IV**

- 8 (a) Briefly discuss the golden rules for the user interface design.  
(b) Explain the various steps involved in WebApp interface design.

**OR**

- 9 (a) Write and explain the interface design steps.  
(b) Discuss the design pyramid for WebApp.

**UNIT – V**

- 10 (a) Describe the test strategies for conventional software.  
(b) Explain about unit testing considerations and procedures.

**OR**

- 11 (a) Explain the test strategies for object-oriented software.  
(b) Briefly discuss about Integration testing strategies.

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