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**B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2015**

**Fourth Semester**

**Computer Science and Engineering  
CS 6403-SOFTWARE ENGINEERING**

**(Regulations 2013)**

**Answer ALL questions.**

**Part A – (10 x 2 = 20 marks)**

1. Write the process framework and umbrella activities.
2. State the advantages and disadvantages in LOC based cost estimation.
3. What is the need for feasibility analysis?
4. How are the requirements validated?
5. Draw diagrams to demonstrate the architectural styles.
6. List down the steps to be followed for user interface design.
7. What is the need for regression testing?
8. Write the best practices for “CODING”.
9. Highlight the activities in project planning.
10. State the importance of scheduling activity in project management.

**Part B – (5 x 16 = 80 marks)**

11. a) Neatly explain the following process models and write their advantages and disadvantages.
  - i) Spiral model (8)
  - ii) Rapid application development model. (8)

**Or**

- b) Discuss about the COCOMO models (Basic, intermediate and detailed) for cost estimation. (16)

12. a) Write about the following requirements engineering activities.
  - i) Inception (2)
  - ii) Elicitation (3)
  - iii) Elaboration (3)
  - iv) Negotiation (2)
  - v) Specification (2)
  - vi) Validation (2)
  - vii) Requirement management (2)

**Or**

- b) Draw use case and data flow diagrams for a restaurant system. The activities of the restaurant system are listed below.

Receive the customer food orders, produce the customer ordered foods, serve the customer with their ordered foods, collect payment from customers, store customer payment details, order raw materials for food products, pay for raw materials and pay for labor. (16)

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13. a) Explain the various coupling and cohesion methods used in software design. (16)

**Or**

b) For a case study of your choice show the architectural and component design. (16)

14. a) Describe the various black box and white box testing techniques. Use suitable examples for your explanation. (16)

**Or**

b) Discuss about the various integration and debugging strategies followed in software development. (16)

15. a) State the need for risk management and explain the activities under risk management. (16)

**Or**

b) Write short notes on the following.

i) Project scheduling (8)

ii) Project timeline chart and task network (8)