

Code No: 812AJ

**R13**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**MCA II Semester Examinations, August - 2017**  
**SOFTWARE ENGINEERING**

**Time: 3 Hours****Max. Marks: 60**

**Note:** This question paper contains two parts A and B.  
Part A is compulsory which carries 20 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 8 marks and may have a, b, c as sub questions.

**PART - A****5 × 4 Marks = 20**

- 1.a) Write short note on CMMI. [4]
- b) Explain Behavioral models. [4]
- c) What is component level design? [4]
- d) Describe Validation testing. [4]
- e) State any three ISO 9000 quality standards. [4]

**PART - B****5 × 8 Marks = 40**

2. Compare waterfall model and Incremental process models. And also discuss for which type of projects the water fall model is preferable. [8]

**OR**

3. What are specialized process models? How are they different from the unified process? [8]

4. What is meant by Requirements elicitation? Describe how is it different from Requirements analysis. [8]

**OR**

5. Explain the Requirement validation techniques with suitable examples. [8]

- 6.a) Discuss the importance of software design. Explain how to assess Design qualities? [4+4]
- b) What are Design patterns? How they are useful in software design? [4+4]

**OR**

- 7.a) Discuss about design by top-down decomposition and design by composition. [4+4]
- b) What is meant by component based design? Discuss its advantages and its drawbacks. [4+4]

8. Distinguish between process metrics and project metrics. Give suitable example to each of them. And explain about types of product metrics. [8]

**OR**

9. Define the Testing process. Differentiate between black box testing and white box testing with suitable examples. [8]

10. Discuss about risk mitigation and monitoring and RMMM plan. [8]

**OR**

11. Define the term software Quality. And discuss various metrics that can be adopted for assessing software quality management. [8]