

**R15****Code No: 821AK****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MCA II Semester Examinations, August - 2017****SOFTWARE ENGINEERING****Time: 3hrs****Max.Marks:75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART - A****5 × 5 Marks = 25**

- 1.a) What are the generic framework activities that are present in every software process?[5]
- b) What are the characteristics of SRS? [5]
- c) How to assess the quality of software design? [5]
- d) What is Cyclomatic complexity? How to compute it? [5]
- e) Describe the difference between “known risks” and “predictable risks”? [5]

**PART - B****5 × 10 Marks = 50**

- 2.a) Describe the life cycle of a computer-based system. Also explain the concept of Waterfall model of software life cycle.
  - b) Compare between perspective and iterative process models. [7+3]
- OR
- 3.a) Explain the levels in continuous model of CMMI.
  - b) Explain unified process? Elaborate on the unified process work products. [5+5]
4. State and explain the requirements engineering tasks in detail. [10]
- OR
- 5.a) Develop an object model, including a class hierarchy diagram and an aggregation diagram showing the components in the computer based system of your choice.
  - b) Suggest how an engineer responsible for drawing up a system requirements specification might keep track of the relationship between functional and non- functional requirements? [6+4]
- 6.a) Explain the concept of class based modeling in detail.
  - b) What are the elements of data design? [6+4]
- OR
- 7.a) What are the steps involved in user interface analysis?
  - b) Why is “chunking” important during the component-level design review process. [5+5]

- 8.a) Distinguish between verification and validation. What are the conditions exists after performing validation testing?  
b) What are the reasons behind to perform white box testing? [5+5]  
OR
9. Describe the difference between process and project metrics in your own words. [10]
- 10.a) How do we review quality and how are effective reviews conducted?  
b) Explain in detail about RMMM. [5+5]  
OR
11. Explain the following  
a) CASE Tools  
b) Change Management. [5+5]

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