Code No: 812AJ

R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA II Semester Examinations, June/July - 2018
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) What are the various categories of software? What are the fundamental activities of a software process?   [4]
  b) Compare and Contrast Functional Requirements with Non-Functional Requirements.[4]
  c) What are the various elements of data design?   [4]
  d) What are the reasons behind to perform white box testing?   [4]
  e) What are the different categories of risks to be considered in "Software Development Process"?   [4]

PART - B

5 × 8 Marks = 40

2.   Which of the software engineering paradigms do you think would be most effective? Why?   [8]

OR

3.a) What are the advantages of providing static and dynamic views of the software process as in the Rational Unified Process?
  b) List the process maturity levels in SEIs CMM.   [4+4]

4.a) What is requirement validation? Describe various methods of requirement validation.
  b) Describe the activities of Requirements Elicitation and Analysis process in brief.   [4+4]

OR

5.   Develop an object model, including a class hierarchy diagram and an aggregation diagram showing the components in the banking system.   [8]

6.   Draw a Data-Flow Diagram to model inventory data processing involved when a customer orders items through online.   [8]

OR

7.   List the basic design principles of class based components and conventional components. For a case study of your choice show the architectural and component design.   [8]

8.   List and explain different types of testing done during the testing phase.   [8]

OR

9.   Define Metric. What are the different types of metrics? Explain about quality metrics.[8]

10.   Explain the following:
        a) Reactive Vs Proactive Risk strategies.
        b) RMMM   [4+4]

OR

11.   Explain the following
        a) ISO 9000 quality standards.
        b) Software Vs. Formal Technical reviews.   [4+4]

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