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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

Third Semester, Master of Computer Applications (MCA)

Make-up Examination; Jan / Feb - 2017

Software Engineering

Time: 3 hrs

Max. Marks: 100

Note: Answer FIVE full questions, selecting ONE full question from each unit.

UNIT - I

- 1 a. Explain with the figure, generic activities involved in software process. 10
- b. Explain various key challenges facing software engineer's and also explain professional and ethical responsibility. 10
- 2 a. What is RUP? Explain with the figure different phases in RUP. 10
- b. What is extreme programming? Explain the practices of extreme programming. 10

UNIT - II

- 3 a. What is Requirement document? Explain its structure. 10
- b. Explain different categories of Requirement. In detail explain functional and non-functional requirement. 10
- 4 a. With the figure, explain requirement elicitation and analysis process. 10
- b. Elaborate on different dimensions of dependability. Give its assurances. 10

UNIT - III

- 5 a. Explain with an example, interaction model. 10
- b. With an example, explain Behavioral model. 10
- 6 a. Explain different patterns used in architectural design decisions. 10
- b. Explain different stages in object oriented design using UML. 10

UNIT - IV

- 7 a. With the figure, explain basic elements of component model. Also explain the characteristics of component. 10
- b. What are the different architectural patterns available for distributed system? Explain with the figure, peer to peer architecture. 10
- 8 a. Explain in detail Risk management process. 10
- b. Explain different factors influencing team work and managing people. 10

UNIT - V

- 9 a. Explain different section's involved in project plan and also explain project planning process. 10
- b. Explain with the figure project scheduling process. 10
- 10 a. Explain different estimation techniques. In detail explain algorithmic cost modelling. 10
- b. Explain the following : 10
 - i) Component testing
 - ii) User testing.