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

(An Autonomous Institution affiliated to VTU, Belgaum)

Sixth Semester, B.E. – Computer Science and Engineering

Semester End Examination; June - 2016

Software Engineering

Time: 3 hrs

Max. Marks: 100

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

UNIT - I

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|------|--------------------------------------------------------------------------------------------------------------------|----|
| 1 a. | What are the attributes of good software? | 5 |
| b. | What are the three general issues that affect many different types of software? | 5 |
| c. | Explain the waterfall model. List its advantages and disadvantages. | 10 |
| 2 a. | Explain the requirements engineering process with a neat block diagram. Explain the different activities involved. | 10 |
| b. | Describe the general model of design process. | 5 |
| c. | With a neat block diagram, explain the phases in the Rational Unified Process. | 5 |

UNIT - II

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|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| 3 a. | Describe the principles of Agile methods and List the problems with Agile methods. | 10 |
| b. | What are the practices followed in extreme programming? | 10 |
| 4 a. | What is requirement elicitation and analysis? Explain. | 4 |
| b. | Give the number of possible metrics to specify non-functional system properties. | 6 |
| c. | During the requirement validation process, what are the different types of checks to be carried out on the requirements in the requirements document? Also what are the requirements validation techniques, which can be used in conjunction or individually? | 10 |

UNIT - III

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|------|------------------------------------------------------------------------------|----|
| 5 a. | Illustrate the use of sequence diagrams in system modeling with an example. | 10 |
| b. | What is an architectural design? Explain the architectural design decisions. | 10 |
| 6 a. | Draw and explain the state diagram of a microwave oven. | 10 |
| b. | With a neat diagrams, explain language processing system. | 10 |

UNIT - IV

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|------|--------------------------------------------------------------|----|
| 7 a. | Draw and explain the state diagram of a weather station. | 10 |
| b. | Explain release testing with example. | 10 |
| 8 a. | Explain implementation issues of host target development. | 10 |
| b. | With a neat diagram, explain the acceptance testing process. | 10 |

Contd...2

UNIT - V

- 9 a. Why risk management is important in project management? Explain different stages in risk management. 10
- b. Explain Maslow's human-needs hierarchy of motivating people. 10
- 10a. With a neat diagram, briefly explain configuration management activities. 10
- b. List and explain the factors influencing system release planning. 10

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