



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

(An Autonomous Institution affiliated to VTU, Belgaum)

Third Semester, Master of Computer Applications (MCA)

Semester End Examination; Dec - 2016/Jan - 2017

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 is a software engineering? Explain attributes of good software. | 5 |
| | b. Explain the professional responsibility of software engineering ethics. | 5 |
| | c. With a neat diagram, explain software specification and software design phases of software process activities. | 10 |
| 2 a. | With a neat diagram, explain Boehm's spiral model of the software process. | 10 |
| | b. What is agile software development? Explain good programming practices of XP. | 10 |

UNIT - II

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|------|---|----|
| 3 a. | Explain the IEEE standard for requirement document. | 10 |
| | b. With the neat diagram, explain the different types of non-functional requirement and functional requirement. | 10 |
| 4 a. | Explain requirement Elicitation and Analysis process with figure. | 10 |
| | b. Discuss the different security terminology. | 5 |
| | c. With a neat diagram, explain the principal properties of dependability. | 5 |

UNIT - III

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|------|---|----|
| 5 a. | With a neat diagram, explain event-driven model process for microwave oven state diagram. | 10 |
| | b. Explain with an example interaction model. | 10 |
| 6 a. | Discuss the different patterns used in architectural design process. | 10 |
| | b. Discuss the detail design process involved in object oriented design process. | 10 |

UNIT - IV

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| 7 a. | Why it is important that all component interactions are defined through 'requires' and 'providers' interfaces? Explain. | 10 |
| | b. Bring out the differences between a fat-client and a thin-client approach to client-server system architecture with suitable example. | 10 |
| 8 a. | Explain different factors influencing team work and managing people. | 10 |
| | b. Explain the process involved in risk management process. | 10 |

UNIT - V

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|-------|---|----|
| 9 a. | With a neat diagram, explain the project scheduling process. | 10 |
| b. | Explain different sections involved in project planning process. | 10 |
| 10 a. | Explain the different types of interfaces that are involved in component testing. | 10 |
| b. | Explain the fundamental process involved in TDD. | 10 |

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