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P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belgaum)
Fifth Semester, B.E. - Information Science and Engineering
Semester End Examination; Dec. - 2015
Software Engineering

Time: 3 hrs   *Max. Marks: 100*

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

UNIT - I

1 a.	What is the difference between Software Engineering and System Engineering?	2
b.	Briefly explain the Component – Based Software Engineering.	8
c.	Give the standard template of system requirement specification for the insulin pump.	10
2 a.	List out and explain the metrics for specifying non - functional requirements.	6
b.	Briefly explain use - cases, draw the use - case for library system. Also draw the sequence diagram for article printing.	10
c.	Explain Object Aggregation with suitable example.	4

UNIT - II

3 a.	Explain the architecture of an integrated CASE toolset. Give the advantages and disadvantages of shared repository.	10
b.	Explain the centralized control style.	5
c.	Explain the core activities in the UI design process.	5
4 a.	Explain the Event Based Control style.	5
b.	Explain an Object Oriented design process.	10
c.	List out and explain usability attributes.	5

UNIT - III

5 a.	Give the structure of a software test plan.	7
b.	Explain clean room software development.	10
c.	Explain the types of critical system.	3
6 a.	List out and explain an inspection checks.	6
b.	Explain the following type of system testing : i) Integration Testing ii) Release Testing	14

UNIT - IV

7 a.	Explain People Capability Maturity model.	10
b.	Explain the document production process including quality checks.	10

8 a.	Explain the factors affecting software engineering productivity.	5
b.	Explain the COCOMO model.	10
c.	Explain the key stages in process change process.	5

UNIT - V

9 a.	Explain the strategic option for legacy system evolution. List out the factors used in application assesment.	12
b.	List out and explain Lehman's Law.	8
10a.	Explain the Re - Engineering process. List out its advantages.	12
b.	What are the four clusters of legacy system assesment? List out the four basic issues.	8

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