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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

- 1 a. Describe the two fundamental types of software product. Give example for each. 6
 b. Explain the attributes of good software. 4
 c. Describe the professional and ethical responsibility of a software engineer. List the code of ethics of software engineers. 10
- 2 a. Explain the different dimensions of dependability. 10
 b. Explain evolutionary development. List its advantages and disadvantages. 10

UNIT - II

- 3 a. Explain the structure of a requirements document as per IEEE standards. 10
 b. Differentiate between enduring and volatile requirements. List the different types of volatile requirements. 10
- 4 a. List and explain the different types of non functional requirement. Give example for each. 10
 b. Explain the requirements engineering process. 10

UNIT - III

- 5 a. Explain the different modular decomposition styles. 10
 b. Describe the object oriented design process. 10
- 6 a. Explain the repository model. List its advantages and disadvantages. 10
 b. Explain the risk management process. 10

UNIT - IV

- 7 a. Explain the extreme programming release cycle. List the advantages of pair programming. 10
 b. Explain the Agile principle. List its limitations. 10
- 8 a. Explain the extreme programming practices. 10
 b. Describe Lehman's law of program evolution dynamics. 10

UNIT - V

- 9 a. Explain the program inspection process. Describe the various roles involved in this process. 10
 b. Explain the clean room development process. 10
- 10 a. Explain interface testing. 10
 b. Explain the factors governing staff selection. 10