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Question Paper Code : 65006

5 Year M.Sc. DEGREE EXAMINATION, MAY/JUNE 2013.

Fourth Semester

Software Engineering

XSE 241/10677 SW 402 — SOFTWARE ENGINEERING –II

(Regulation 2003/2010)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List any three steps for an organization how improve their software capabilities.

2. Define the roles of Champions, Sponsors and Agents in implementing software process change.

3. What are the guidelines that have to be followed in the case of SQA reporting?

4. List some of the merits of independent verification and validation.

5. What are the basic criteria's to select an official agent for process change?

6. Give any of the four sustaining roles for SEPG.

7. Give any three issues that are addressed by Test Data Analysis.

8. What are merits of error seeding technique for evaluating program quality?

9. What are the six categories of errors that are suggested for defect prevention analysis?

10. Differentiate between Cause analysis meeting and Inspections.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Elaborate on the key steps required to advance from defined process level to next level. (8)

    (ii) Describe the common misconceptions about the software process. (8)

    Or

    (b) (i) Enumerate on the factors that makes the software management differ from other engineering fields. (8)

    (ii) Describe Refreezing and the elements of change in software process. (8)

12. (a) (i) Discuss in detail about the Software Product Nomenclature and its associated testing strategies. (8)

    (ii) What do you understand by Baseline scope and control in SCM? (8)

    Or

    (b) (i) Define SCM. Explain in detail about the basic configuration management functions. (8)

    (ii) Write in detail about the methodologies that the basic organization framework must include in establishing an SQA function. (8)

13. (a) (i) Write in detail about the critical software process issues needed for defining the software process. (8)

    (ii) Write a short note on :

    (1) Entity Process Models. (4)

    (2) Process model views. (4)

    Or

    (b) (i) Elaborate the tasks involved in establishing SEPG Standards. (8)

    (ii) Describe the essential considerations for developing an effective process database. (8)

14. (a) (i) Discuss in detail about how a software quality estimate can be done. (8)

    (ii) Explore the various characteristics of an intuitive quality model. (8)

    Or

    (b) (i) Elaborate the ways in which the software measurements can be classified. (8)

    (ii) Describe the various objectives for gathering the productivity data. (8)

15. (a) (i) Write short notes on:

          (1) The Causes Analysis Meeting. (4)

          (2) Defect prevention Considerations. (4)

    (ii) Enumerate on the principles of software defect prevention. (8)

Or

(b) (i) Write in detail about the process changes that are incorporated during Defect Prevention. (8)

    (ii) Elaborate about the preventive feedback mechanism for Defect Prevention. (8)

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