SIXTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEME EXAMINATION, APRIL 2015

IT 09 601—SOFTWARE QUALITY MANAGEMENT

Time: Three Hours

Maximum: 70 Marks

Part A

Answer all questions.

- 1. Differentiate verification and validation.
- 2. What is meant by baseline in Software Configuration Management?
- 3. What are the five stages of CMM?
- 4. List out the special responsibilities of Technical Review Process.
- 5. Define Defect removal efficiency.

 $(5 \times 2 = 10 \text{ marks})$

Part B

Answer any four questions.

- Explain the factors affecting the SQA effort.
- 7. Explain the major activities of software configuration management.
- 8. Differentiate between staged and continuous representation of CMM-1 model.
- What is cyclomatic complexity? Explain how cyclomatic complexity is used in testing, maintenance and risk assessment.
- 10. Explain the management role in defect prevention.
- 11. Explain how testing is different from inspection and debugging.

 $(4 \times 5 = 20 \text{ marks})$

Part C

Answer all questions.

12. (a) Explain in detail the Quality tasks and responsibilities.

Or

(b) Describe how quality management system support the function of different users within the organization. 13. (a) Explain the identification and status accounting activity of software configuration Management.

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- (b) Explain the configuration management plan and its support functions in detail.
- 14. (a) What are the roles and responsibilities of personnel involved in testing?

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- (b) Explain different inspection training models for Quality Assurance.
- 15. (a) Explain the steps in preparing an organization for ISO certification.

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(b) Explain the process changes that should be considered in defect prevention.

 $(4 \times 10 = 40 \text{ marks})$