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Reg. No.							

## Question Paper Code: 45932

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2014.

Seventh Semester

## Software Engineering

## XSE 471/10677 SW 701 – SOFTWARE TESTING

(Regulation 2003/2010)

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

 $PART A - (10 \times 2 = 20 \text{ marks})$ 

- 1. Mention two software problems that commonly cause bad design decisions.
- 2. Suggest means to identify the business risks associated with a software system under development. How can the risk be mapped to a SDLC phase?
- 3. What forms part of a programmers workbench?
- 4. Along with the reason, suggest the functional system testing technique to use when there is a high risk that new changes may affect unchanged areas of the application system.
- 5. Mention the tests that are mandatory for online applications and state your reason.
- 6. When is recovery testing used?
- 7. What are the possible difficulties faced by the test team in the installation phase?
- 8. How does testing the audit trail function help?
- 9. What are the tasks in the workbench for testing a data warehouse?
- 10. What are the major challenges when testing in a multiplatform environment?

## PART B — $(5 \times 16 = 80 \text{ marks})$

11. (a) What is the importance of following a well-defined process for an organization to become a world class software testing organization? Create a model to help a company define their strengths and deficiencies, their staff competencies and deficiencies and areas of user satisfaction.

Or

- (b) What is cost-effectiveness of testing? Show the role of software testing in the different phases of the SDLC and the problems associated with software testing in an organization.
- 12. (a) Elaborate on the six general software testing guidelines that can significantly improve software testing and are the primary reason to build a software testing process.

Or

- (b) List the various testing tools along with their functions and the skill level to which they are most appropriate.
- 13. (a) Write a program to check if a number is prime, Perform structural testing on the code and show the analysis.

Or

- (b) Elaborate on the steps involved in developing an effective test plan.
- 14. (a) Compare and contrast the reporting of interim and final test reports.

Or

- (b) Elaborate on how changed software versions can be tested.
- 15. (a) With an online shopping site as a case study, show how web based systems can be tested.

Or

(b) Describe how spiral testing aids RAD systems.