

C.U.SHAH UNIVERSITY

Winter Examination-2015

Subject Name : Software Engineering

Subject Code : 4TE05SWE1

Branch: B.Tech (CE,IT)

Semester : 5 Date :11/12/2015 Time :2:30 To 5:30 Marks : 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1

Attempt the following questions:

- a) Which of the following is **not** an objective for building analysis models? (01)
 - (a) Define set of software requirements that can be validated
 - (b) Describe customer requirements
 - (c) Develop a solution for the problem
 - (d) Establish basis for software design
 - (e) Define set of software requirements that can be verified
- b) The first activity in software project planning is the determination of _____ (01)
 - (a) Software Size (b) Software Scope (c) Software Prize (d) All of the above
- c) Software configuration belongs to which of the following activities? (01)
 - a) Umbrella activity b) Economic activity c) None of these d) All of the above
- d) If P is risk probability, L is loss, then Risk Exposure (RE) is computed as (01)
 - (a) $RE = P/L$ (b) $RE = P + L$ (c) $RE = P*L$ (d) $RE = 2* P *L$
- e) State: True/False? (01)

Once we write the program and test it, our work is not over
- f) Which two of the following models will not be able to give the desired outcome if user's participation is not involved? (01)
 - (a) Waterfall & Spiral
 - (b) RAD & Spiral
 - (c) RAD & Waterfall
 - (d) RAD & Prototyping
- g) If every requirement stated in the Software Requirement Specification (SRS) has only one interpretation, SRS is said to be (01)
 - (a) correct (b) unambiguous (c) consistent (d) verifiable
- h) Which of the following items should **not** be included in the software project management plan? (01)
 - (a) The techniques and case tools to be used
 - (b) Detailed schedules, budgets and resource allocations
 - (c) The life cycle model to be used
 - (d) The organizational structure of the development organization, project



- responsibilities, managerial objectives and priorities
- (e) None of the above.
- i) If a control switch is passed as an argument this is an example of _____ coupling. (01)
- (a) Content
- (b) Common
- (c) Control
- (d) Stamp
- (e) Data.
- j) A design is said to be a good design if the components are (01)
- (a) Strongly coupled
- (b) Weakly cohesive
- (c) Strongly coupled and Weakly cohesive
- (d) Strongly coupled and strongly cohesive
- (e) Strongly cohesive and weakly coupled.
- k) An example of the risk involved in software development is (01)
- (a) Key personnel may resign before the product is complete
- (b) The manufacturer of critical components (e.g. the hardware associated with a real-time system) may go bankrupt
- (c) Technology changes may render the product obsolete
- (d) Competitors may market a fully functional lower-cost equivalent package
- (e) All of the above.
- l) What do you call when two modules are coupled, when they communicate via a composite data item? (01)
- (a) Content coupling
- (b) Common coupling
- (c) Control coupling
- (d) Data coupling
- (e) Stamp coupling.
- m) What is normally considered as an adjunct to the coding step (01)
- (a) Integration testing
- (b) Unit testing
- (c) Completion of Testing
- (d) Regression Testing
- n) Which tests are designed to confront the program with abnormal situations? (01)
- (a) Recovery testing
- (b) Security testing
- (c) Stress testing
- (d) Performance testing
- (e) Usage testing.

Attempt any four questions from Q-2 to Q-8

- Q-2 Attempt all questions (14)**
- (a) Explain Spiral model. Also explain how does it differ from Software Prototyping model?



- (b) What is requirement engineering? List and Explain requirement engineering tasks.

Q-3 Attempt all questions

- (a) Explain FAST approach for requirement gathering. (05)
(b) What is the need for feasibility study? Explain different types of feasibility study. (05)
(c) Explain Software testing principles. (04)

Q-4 Attempt all questions

- (a) Prepare SRS document for Hotel management system. (14)
(b) Explain common process framework.

Q-5 Attempt all questions

- (a) What is W5HH principle? Explain. (14)
(b) Write a note on: Risk Management.

Q-6 Attempt all questions

- (a) Prepare an E-R diagram for a simple Library Management System. (06)
(b) Explain the differences between coupling and cohesion. (04)
(c) Differentiate alpha testing and beta testing. (04)

Q-7 Attempt all questions

- (a) Explain Black box testing and White box testing. Explain any one technique to carry out each testing. (14)
(b) Write a note on software Architectural Patterns.

Q-8 Attempt all questions

- (a) Write a note on COCOMO model. (06)
(b) Explain Integration Testing Method. (05)
(c) Justify statement: Software engineering is a layered technology. (03)

