

(6 pages)

Reg. No. :

Code No. : 8739

Sub. Code : HCAM 25

M.C.A. (CBCS) DEGREE EXAMINATION,
APRIL 2013.

Second Semester

SOFTWARE ENGINEERING

(For those who joined in July 2012 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Software is

- (a) a set of computer programs, procedures and possibly associated document concerned with the operation of data processing
- (b) a program
- (c) a set of compiler instructions
- (d) a set of software documentation.

2. The most important feature of spiral model is

- (a) requirement analysis
- (b) risk management
- (c) quality management
- (d) configuration management.

3. The functional specification requirements specification of a system should be

- (a) complete
- (b) consistent
- (c) both complete and consistent
- (d) reliable.

4. The process of understanding and controlling changes to system requirements known to be requirement _____

- (a) management (b) validation
- (c) review (d) prototyping.

5. _____ is a named collection of data that describes a data object.

- (a) Pattern (b) Data abstraction
- (c) Data model (d) Data definition.

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6. _____ is a SCM concept that helps to control change without seriously impeding justifiable change.
- (a) baseline
 - (b) version
 - (c) configuration item
 - (d) repository.
7. _____ testing relies on analyzing a program to determine paths through it and using this analysis to assist with the selection of test cases.
- (a) unit
 - (b) integration
 - (c) system
 - (d) structural
8. All the modules of the system are integrated and tested a complete system in the case of _____
- (a) bottom up testing
 - (b) top-down testing
 - (c) sandwich testing
 - (d) big-bang testing.
9. _____ is the act of determining a measure.
- (a) Testing
 - (b) Measurement
 - (c) Complexity
 - (d) Verification.

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10. If a program in its functioning has not met user requirements in some way, then it is
- (a) an error
 - (b) a failure
 - (c) a fault
 - (d) a defect.

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) What are the advantages of using prototype model than using waterfall model? Explain.
- Or
- (b) State the system engineering hierarchy.
12. (a) Define "Requirements". What are the system and user requirements? Explain.
- Or
- (b) What is software prototyping? Explain.
13. (a) Illustrate architectural context diagram.
- Or
- (b) What is Data Flow Diagram? Explain its use in system design.
14. (a) Explain the regression testing process.
- Or
- (b) Explain the validation testing.

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15. (a) What are the types of CASE tools? Explain.

Or

- (b) Explain the factors influence the software cost.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

16. (a) Describe the activities involved in system development life cycle.

Or

- (b) Discuss the life cycle system development process in detail.

17. (a) Discuss various types of non-functional requirements that may be placed on a system.

Or

- (b) Describe the notations used for requirements specifications.

18. (a) What are the principles to be followed while designing user interface? Explain.

Or

- (b) Describe the design steps in transform mapping in detail.

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19. (a) How boundary conditions are achieved in testing? Explain.

Or

- (b) Explain the block box testing strategy and its significance.

20. (a) What is software maintenance? Explain various methods.

Or

- (b) What are CASE tools? Explain their usage in Software Engineering.

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