(6 pages) Reg. No. : ....

Code No. : 41179 E Sub. Code : JMCS 51/ JMSE 51

B.Sc. (CBCS) DEGREE EXAMINATION, NOVEMBER 2018.

Fifth Semester

Computer Science — Main

SOFTWARE ENGINEERING AND TESTING

(For those who joined in July 2016 and afterwards)

Time : Three hours   Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. Expand RAD
   (a) Rapid Application Development
   (b) Random Application Development
   (c) Rouse Application Development
   (d) None of the above

2. A ——————— software is developed by a group of software developers working together in a team.
   (a) Professional
   (b) Application
   (c) System
   (d) Programming

3. The primary objective of requirement gathering task is to the requirements from the
   (a) Stakeholders   (b) Users
   (c) System   (d) Employers

4. Skills to successful project management
   (a) Knowledge of project management techniques
   (b) Decision taking capabilities
   (c) Previous experience in similar projects
   (d) All the above

5. A design solution should be ——————— and layered to be understandable.
   (a) Modular
   (b) Sequential
   (c) Random
   (d) None of the above

6. Expand UML.

   (a) Unified Modelling Language

   (b) United Modelling Language

   (c) Unified Method Language

   (d) United Method Language

7. It causes further menu items to be displayed adjacent to it in a sub-menu.

   (a) Walking menu   (b) Scrolling menu

   (c) Hierarchical menu (d) None of the above

8. In this approach, once a failure is observed, the symptoms of the failure are noted.

   (a) Brute force method

   (b) Back tracking

   (c) Cause elimination method

   (d) None of the above

9. The software components fail due to —————.

   (a) bugs

   (b) wear and tear

   (c) dependability

   (d) none of the above

10. Product metrics help measure the ————— of a product being developed.

    (a) characteristics   (b) performance

    (c) process   (d) none of the above

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Describe the emergence of Software Engineering.

Or

   (b) Describe the prototyping model.

12. (a) What do you understand by requirements gathering? Explain its different techniques.

Or

   (b) Explain project estimation techniques.

13. (a) How to characterise a Good Software Design?

Or

   (b) Describe UML diagrams.

14. (a) Explain Graphical user interface versus Text based user interface.

Or

(b) Explain unit Testing.

15. (a) Explain Software quality management system.

Or

(b) Explain shortcomings of ISO 9000 certification.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Explain the various phases of classical waterfall model.

Or

(b) Explain spiral model in detail.

17. (a) Describe the responsibilities of a software project manager.

Or

(b) Explain risk management in detail.

18. (a) Explain developing the DFD model of a system with context diagram.

Or

(b) Explain Activity diagram and state chart diagram.

19. (a) Explain characteristics of a good user interface.

Or

(b) Explain Black-box Testing with example.

20. (a) Explain software maintenance.

Or

(b) Describe CASE support in software life cycle.

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