Reg. No. :

Question Paper Code: 42931

M.E.DEGREE EXAMINATION, MAY 2016

Elective

Computer Science and Engineering

14PCS503 - SOFTWARE QUALITY ASSURANCE

(Regulation 2014)

Duration: Threehours   Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. In a contract to develop software, what contractual section explains the guarantees provided by the contractor?

    (a) Deliverables   (b) Vendor support
    (c) Warranty   (d) Foreign attachment

2. Which of the following metrics are used to indicate the size of a program?

    (a) Number of programmers needed to build a program
    (b) Cost to build a program
    (c) Function points
    (d) Number of paths

3. Which of the following groups normally does not conduct an IT baseline study?

    (a) Quality assurance groups   (b) Quality task forces
    (c) IT management   (d) Internal auditors

4. What is the first question that needs to be answered when doing quality planning?

    (a) Where do we want to go?   (b) Where are we?
    (c) How are we going to get there?   (d) Who is responsible for what?

5. Which of the following types of testing assumes that a path of logic in a unit or program is known?

    (a) White-box testing   (b) Black-box testing

    (c) Incremental testing   (d) Regression testing

PART - B (5 x 3 = 15 Marks)

6. What is quality control?

7. Differentiate internal and external auditing.

8. What are the various testing strategies?

9. Why path testing is needed?

10. Differentiate integration and unit testing?

PART - C (5 x 16 = 80 Marks)

11. (a) Explain the various quality assurance methods in detail?   (16)

Or

   (b) Describe the quality framework with suitable diagram.   (16)

12. (a) Describe the walkthroughs with suitable example.   (16)

Or

   (b) Discuss inspection and auditing in detail. Compare both.   (16)

13. (a) Explain the types of testing.   (16)

Or

   (b) Explain the combinatorial generation in detail.   (16)

14. (a) Explain the different controls in flow graph in detail.   (16)

Or

   (b) Explain the mutation analysis in detail.   (16)

15. (a) Explain the different types of functional testing in detail.   (16)

Or

   (b) Explain the test oracles in detail.   (16)

————————————

42931