Reg. No. :

Question Paper Code: 6213057

M.C.A. DEGREE EXAMINATIONS, NOV/ DEC 2024
Third Semester
Master of Computer Application
P20CA303 – SOFTWARE ENGINEERING
(Regulation 2020)

Time: Three Hours   Maximum: 100 Marks

Answer ALL questions

PART – A   (10 x 2 = 20 Marks)

1.   List the goals of software engineering.

2.   Give the importance of risk analysis.

3.   List the elements of computer based system.

4.   What is is the difference between cardinality and modality?

5.   What are Mc Call's quality factors for software metrics?

6.   Discuss about ISO 9126 quality factors.

7.   What do you meant by white-box testing?

8.   Explain the activities of verification and validation.

9.   What is the need for Software Configuration Management?

10.   Mention some of the benefits of CASE tools.

11. (a) Explain iterative waterfall model for software engineering life cycle.   (16)

(OR)

(b) Explain the following with suitable diagrams.   (4+4+4+4)
    i)   Prototyping model
    ii)   The RAD model.
    iii)   The Spiral model
    iv)   Incremental Model

12. (a) Draw and explain various levels of Dataflow diagram for bank management system.   (16)

(OR)

(b) What are the various cost estimation methods? Explain COCOMO model in detail.   (16)

13. (a) What are the metrics needed for achieving software quality? And how will you integrate metrics within the software process?   (16)

(OR)

b)1. Brief about FP-based Estimation and Process based Estimation.   (8)
       Describe the Jackson system development method. How is it better than other design techniques?   (8)

14. (a) Explain cyclomatic complexity with suitable example. Narrate a diagram with connected nodes.   (16)

(OR)

(b) Narrate the automation software testing tools to test the web applications with the flow diagram.   (16)

15. (a) "An early working prototype can result in reducing the volume and magnitude of changes to the product specifications that might otherwise be needed later in the software development process". Explain the importance of prototype in the configuration management.   (16)

(OR)

(b) Describe software configuration management process and items covered under SCM. State the need.   (16)

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