12455

MCA 1st Semester (Regular/Re-appear/Improvement) Examination – December, 2024

SOFTWARE ENGINEERING & TESTING

Paper : MCA-2105

Time : Three Hours]   *[Maximum Marks : 80*

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each Unit. Question No. **1** is *compulsory*. All questions carry equal marks.

1. (a) Why specification of language is important in software engineering ?

     (b) What do you mean of beta testing ? How it is useful ?

     (c) What is use of Cyclomatic complexity metric in software testing ?

     (d) What is validation in software engineering ?

     (e) What is purpose of metrics ? Explain.

(f) Define input space.

(g) What do you mean error in software testing? How to mitigate it?

(h) What do you mean of DFD?   8 × 2 = 16

UNIT – I

2. (a) What are the generic framework activities present in every software process?   8

(b) What is spiral model? Explain its advantages and disadvantages of with the help of diagram.   8

3. (a) What do you mean of software myth? Explain it in detail with suitable example.   8

(b) Explain software requirement specification document in detail.   8

UNIT – II

4. What is software project estimation model? Explain different software project estimation models for it in detail.

5. Write notes on the following: 4 × 4 = 16

(i) Level of software design

(ii) Testability and feature of test case

(iii) Defect testability

(iv) Input space

UNIT – III

6. (a) What is integration testing explain it in detail with the help of example.   8

(b) Explain software quality factor and framework in detail with the help of example.   8

7. Explain the different software testing tools in detail.   16

UNIT – IV

8. (a) Describe the software configuration management and its reuse in detail.   8

(b) Explain the Software quality standards, issue and methods in detail.   8

9. What is software quality assurance? Explain its importance and structured walk through techniques in detail.   16

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