

Roll No. :

Total No. of Questions : 16]

[Total No. of Printed Pages : 3

SEM-1003

M.Sc. (Lateral Entry) (Ist Semester) Examination, 2022

COMPUTER SCIENCE

Paper - FS-Comp-MCSLE-CC-103 (a)

(Software Engineering and Research Methodology)

Time : 3 Hours]

[Maximum Marks : 40

The question paper contains three Sections.

Section-A

(Marks : 1 × 10 = 10)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries 1 mark.

Section-B

(Marks : 3 × 5 = 15)

Note :- Answer any *five* questions by selecting at least *one* question from each Unit (Answer limit **200** words). Each question carries **3** marks.

Section-C

(Marks : 5 × 3 = 15)

Note :- Answer any *three* questions by selecting *one* question from each Unit (Answer limit **500** words). Each question carries **5** marks.

Section-A

1. Attempt all questions. Answers should not exceed **50** words in each question.

(i) What do you mean by Software Process ?

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- (ii) What is Risk Management ?
- (iii) What do you mean by Prototyping model ?
- (iv) What do you mean by Software Quality ?
- (v) What do you mean by Abstraction ?
- (vi) What is Modularity ?
- (vii) What do you mean by size oriented metrics ?
- (viii) What is Research ?
- (ix) What is Research Problem ?
- (x) What do you mean by Research Process ?

Section–B

Note :- Answer any *five* questions in about **200** words, by selecting at least *one* question from each Unit. Each question carries **3** marks.

Unit–I

- 2. Describe McCall's Quality Factor.
- 3. Explain Spiral Model.
- 4. Describe Software Characteristics.

Unit–II

- 5. What do you mean by Cohesion and Coupling ?
- 6. Describe Function Oriented Matrices.
- 7. Describe Alpha and Beta Testing.

Unit–III

- 8. Explain different Research Approaches.
- 9. Differentiate between Research Methods and Methodology.
- 10. Explain techniques involved in defining a problem.

Section–C

Note :- Answer any *three* questions in this Section, by selecting *one* question from each Unit in about **500** words. Each question carries **5** marks.

Unit–I

11. What do you mean by Software Requirement Analysis and Specification ? Explain characteristics and components.
12. What do you mean by Software Process Model ? Explain Linear Sequential Model.

Unit–II

13. What is COCOMO Model ? Explain project monitoring plan.
14. What is Software Testing Process ? Explain types and level of testing.

Unit–III

15. What is Objective of Research ? Explain significance of research.
16. Explain different types of research and criteria of Good Research.