

Roll No.

DD-791

M. Sc. (Fourth Semester) EXAMINATION, 2020

COMPUTER SCIENCE

Paper First

(Software Engineering)

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 40

Note : Attempt any *two* parts from each Unit. All questions carry equal marks.

Unit—I

1. (a) Describe the software development process using 'Waterfall Model'.
- (b) What is software requirement elicitation ? Write some names for techniques available for requirement elicitation and describe any *one* of them briefly.
- (c) What is the need of software requirement specification ? Also discuss the organization of SRS.

Unit—II

2. (a) Explain 'Constructive Cost Model'.

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- (b) Discuss 'Risk Management' activities in brief.
- (c) Compare 'Function oriented software design' and 'Object oriented software design' approaches.

Unit—III

- 3. (a) Discuss the Halstead's software metrics.
- (b) Describe Logarithmic Poisson software reliability model.
- (c) Explain reasons of 'Faults and Failure' in software reliability and also discuss result of faulty software.

Unit—IV

- 4. (a) Write short notes on the following :
 - (i) Unit Testing
 - (ii) Integration Testing
 - (iii) System Testing
- (b) What are the different phases involved in software maintenance activities ?
- (c) Compare 'Software re-engineering, with 'Software reverse engineering' in brief.