

4E4163

Roll No. \_\_\_\_\_

Total No. of Pages : 3

4E4163

B. Tech. IV Sem. (Main/Back) Exam; April-May 2017

Computer Sc.

4CS4A Software Engineering

Time : 3 Hours

Maximum Marks : 80

Min. Passing Marks : 26

Instructions to Candidates :-

Attempt any **five questions**, selecting **one question** from **each unit**. All Questions carry **equal marks**. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used / calculated must be stated clearly.

Use of following supporting material is permitted during examination.  
(Mentioned in form No. 205)

1. NIL

2. NIL

UNIT - I

- 1 (a) Define system and its types along with various characteristics. 6
- (b) What is requirement specification in Software Engineering ? Describe in detail along with its importance in software development. 10

OR

- 1 (a) Explain Computer System Engineering and System Analysis. 8
- (b) Explain SDLC in detail. 8

**UNIT - II**

- 2 Explain waterfall model in detail along with its various phases; also describe its advantages and disadvantages. 16

**OR**

- 2 (a) Discuss merits and demerits of various models of software development. 8
- (b) Explain specialized process model. 8

**UNIT - III**

- 3 Describe the structural analysis for the system and differentiate the DFD and CFD in detail with example. 16

**OR**

- 3 Write short notes on :
- (a) FSM (Finite State Machine)
  - (b) Data Dictionary
  - (c) Control and Process Specification
  - (d) Behavioural modelling.

4×4

**UNIT - IV**

- 4 What is design documentation in Software Engineering ? Explain along with its importance in detail.

16

**OR**

- 4 (a) Describe the top down and bottom up approach in effective modular design with example.

10

- (b) Explain Cohesion and Coupling.

6

**UNIT - V**

- 5 Explain unified modelling language diagrams with the help of appropriate example.

16

**OR**

- 5 Write short notes on :

(a) ODD concepts and methods

(b) Object oriented analysis modelling.

8×2