3E1140

Roll No. _____ Total No. of Pages: 2

3E1140

B. Tech. III - Sem. (Back) Exam., February - 2023

Computer Science & Engineering

3CS4 – 07 Software Engineering

Common For CS, IT

Time: 3 Hours **Maximum Marks: 120**

Min. Passing Marks: 42

Instructions to Candidates:

Attempt all ten questions from Part A, five questions out of seven questions from Part B and four questions out of five from Part C.

Schematic diagrams must be shown wherever necessary. Any data you feel missing may 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

PART – A

(Answer should be given up to 25 words only) **[10×2=20]**

All questions are compulsory

Q.1 What are requirement analysis tasks and principles?

Q.2 What is object modularization?

Q.3 What is unified modeling language?

Q.4 What is object oriented analysis modeling?

Q.5 What is object oriented design concept and method?

Q.6 What is behavior modeling?

Q.7 List out various activities that are encompassed by system design process under object oriented design?

Q.8 What is system level project planning?

Q.9 What is finite state machine model?

Q.10 What is sequence diagram in context of UML?

PART – B

(Analytical/Problem solving questions) **[5×8=40]**

Attempt any five questions

Q.1 Description of software design document. What is significance of design document?

Q.2 What is architectural & procedural software design? Explain.

Q.3 Explain Incremental Process Model. Justify that it is appropriate for business software system but less appropriate for real time system.

Q.4 What is SDLC? Explain MIS oriented SDLC model.

Q.5 What is object oriented design concept? Explain.

Q.6 Explain class and object relationship in object oriented analysis.

Q.7 Explain COCOMO estimation model in software project management.

PART – C

(Descriptive/Analytical/Problem Solving/Design Questions) **[4×15=60]**

Attempt any four questions

Q.1 Discuss problem that occur while developing a system and suggest possible solution.

Q.2 Explain the system development plan in detail.

Q.3 Explain Finite State Machine model.

Q.4 Describe how to prepare a software requirement specification document and list possible user and use of SRS for each user.

Q.5 Explain use case diagram and state diagram in context of UML.
