

310407

Roll No.

Total No of Pages: 3

310407

B. Tech. III Sem. (Main) Exam., Dec. - 2019

Common for CS/IT

3CS4-07 Software Engineering

Time: 3 Hours

Maximum Marks: 120

Instructions to Candidates:

Part – A: Short answer questions (up to 25 words) 10×2 marks = 20 marks. All ten questions are compulsory.

Part – B: Analytical/Problem Solving questions 5×8 marks = 40 marks. Candidates have to answer five questions out of seven.

Part – C: Descriptive/Analytical/Problem Solving questions 4×15 marks = 60 marks. Candidates have to answer four questions out of five.

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 materials is permitted during examination.
(Mentioned in form No. 205)*

1. NIL

2. NIL

PART - A

- Q.1 What are the attributes of Good Software? [2]
- Q.2 What is software project estimation? [2]
- Q.3 What is meant by system requirement? [2]
- Q.4 What is requirement elicitation and analysis? [2]
- Q.5 State the importance of scheduling activity in project management. [2]
- Q.6 How do we assess the quality of software design? [2]

- Q.7 What is Cyclomatic complexity? [2]
- Q.8 Define FSM. [2]
- Q.9 Under what circumstances is it beneficial to construct a prototype model? [2]
- Q.10 What is COCOMO model? [2]

PART – B

- Q.1 Explain the behavior modeling as a part of structured analysis of Software Development [8]
- Q.2 List advantages of software requirement specification. Describe characteristics of a good software requirement specification. [8]
- Q.3 What are size metrics? How function point metric advantageous over LOC metric? [8]
- Q.4 What do you understand by data dictionary when and how it is used? [8]
- Q.5 Define Unified Approach? Explain UML with all its diagrams and advantages. [8]
- Q.6 Write out the reasons for the failure of waterfall modal. [8]
- Q.7 Discuss problem that occurs while developing a system and suggest possible solutions. [8]

PART – C

- Q.1 Explain object oriented Analysis and its approaches. Also explain class and object relationship model. [15]
- Q.2 Explain all levels of COCOMO model. Assume that the size of an organic software product has been estimated to be 32000 lines of code. Determine effort required to develop the software product and the nominal development. [15]

- Q.3 (a) Requirement analysis is unquestionably the most communication intensive step in the software engineering process. Why the common path does not frequently breaks down? [7]
- (b) Describe the structural analysis for the system and differentiate the DFD and CFD in details with example. [8]
- Q.4 (a) Describe the top down and bottom up approach in effective modular design with example. [7]
- (b) What is design documentation in software engineering? Explain along with its importance in details. [8]
- Q.5 Explain in details Boehm's spiral model for software life cycle and discuss various activates in each phase. [15]
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