

Roll No.

3232

**B. Tech. (CSE) (Elective-I) 5th Semester
Examination – February, 2022**

SOFTWARE ENGINEERING

Paper : PEC-CSE-311G

Time : 3 Hours]

[Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Question No. 1 is *compulsory*. Attempt *five* questions in total, first being *compulsory* and selecting *one* from each Unit.

1. Explain the following :

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|---|-----|
| (a) Software process and software product. | 2.5 |
| (b) Project Scheduling and Tracking. | 2.5 |
| (c) Data Flow Diagrams. | 2.5 |
| (d) Role of Functional independence in System Design. | 2.5 |

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- (e) Alpha and Beta Testing. 2.5
- (f) Defect amplification and removal. 2.5

UNIT - I

- 2. (a) Define the term Software. Explain the important Characteristics of a good Software. Why Software crisis occurs ? Give Reasons. 7.5
- (b) Describe COCOMO model in brief. 7.5
- 3. What is Software project management ? Also explain various metrics of Software Project. 15

UNIT - II

- 4. Requirement's analysis is unquestionably the most communication intensive step in the software engineering process. Why the communication path does frequently break down ? Explain. 15
- 5. (a) Differentiate between Cohesion and Coupling. 7.5
- (b) Explain the software requirements specifications in detail by taking a relative case study. 7.5

UNIT - III

- 6. (a) Differentiate between Software re-engineering and reverse engineering. 7.5
- (b) What is Software Architectural Designs ? Explain architectural complexity for a software design. 7.5

- 7. What is Testing ? Explain various Software Testing Techniques in detail. 15

UNIT - IV

- 8. Describe the Software Quality concepts and various Software Quality Assurance activities in detail. 15
- 9. Explain the following in detail :
 - (a) The ISO 9000 Quality standards : The ISO approach to quality assurance systems. 7.5
 - (b) Computer Aided Software Engineering : CASE 7.5