Code: 20IT3302

II B.Tech - I Semester – Regular Examinations - FEBRUARY 2022

SOFTWARE ENGINEERING
(INFORMATION TECHNOLOGY)

Duration: 3 hours   Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.
2. All parts of Question must be answered in one place.

UNIT – I

1. a) Define software engineering. Discuss various software myths with proper illustrations.   7 M

   b) Explain in detail the following software process models with a neat diagram.   7 M
   i) Evolutionary process model
   ii) Incremental Process model

OR

2. a) Elaborate the changing nature of a software in detail.   7 M

   b) Explain with the help of suitable example that how Agile process helps to build quality product.   7 M

UNIT – II

3. a) Describe five desirable characteristics of a good software requirement specification document.   7 M

   b) Explain software requirement gathering and analysis.   7 M

OR

4. a) Explain a general model of the design process with block diagram.   7 M

    b) What are the characteristics of a good design? Describe different types of coupling and cohesion.   7 M

UNIT-III

5. a) Define Software architecture. Explain why it may be necessary to design the system architecture before the specifications.   7 M

    b) Write the taxonomy of architectural styles and give a brief description of each style.   7 M

OR

6. a) Discuss about golden rules of User Interface Design.   7 M

    b) Discuss about the user interface design of a software with an example and neat sketch.   7 M

UNIT – IV

7. a) Explain the integration testing process and system testing process and discuss their outcomes.   7 M

    b) What is testing? Explain the different testing strategies.   7 M

OR

8. a) Discuss about the Art of debugging.   7 M

    b) What are the main objectives of Software verification and validation? Briefly explain different Verification and Validation techniques.   7 M

UNIT – V

9. a) Describe how statistical testing is useful in software quality management. 7 M

    b) Differentiate between reverse engineering and reengineering. 7 M

<div align="center">OR</div>

10. a) Explain in brief about software reuse. 7 M

    b) Explain the software Reliability. 7 M