B.TECH. Degree Examination, January 2021

Semester - IV

IT16402- Software Engineering Methodologies

(Regulation 2016)

Time: Three hours Maximum : 80 Marks

Answer **ALL** questions

PART A - (8 X 2 = 16 marks)

1. Which one of the following is not a step of requirement engineering?
   a. elicitation
   b. design
   c. analysis
   d. documentation
2. Which of the following model in system modelling depicts the dynamic behaviour of the system?
   a. Behavioral Model
   b. Context Model
   c. Structural Model
   d. Object Model
3. In an Agile environment, what is the main responsibility of a tester?
   a. Create test scenarios and test cases
   b. Finding bugs
   c. Create automation scripts
   d. Send test execution reports to the stakeholders
   e. There is no role as a Tester in Scrum
4. Who is responsible to measure the Project's performance?
   a. The Scrum Master
   b. The Delivery Manager
   c. The Product Owner
   d. The Development Team
   e. The Scrum Team
5. Differentiate functional and non-functional requirement.
6. If you have to develop a word processing what process model will you choose. Justify your answer and examine.

7. Compare and contrast the various agile frameworks used for a agile project
8. Justify the need for agile development compared to plan driven development

PART B - (4 X16 = 64 marks)

09. (a) Illustrate with suitable diagram the different software process models . **(16)**

(OR)

(b) What is requirements elicitation? Briefly describe the various activities performed in requirements elicitation phase with a Stock inventory system application. **(16)**

10. (a) Compare and contrast the various types of Architectural patterns **(16)**

(OR)

(b) Differentiate transaction processing systems and language processing systems. **(16)**

11. (a) Illustrate how scrum agile method is used to provide framework for organizing agile projects . **(16)**

(OR)

(b) Illustrate how Extreme Programming technique is used for agile project development. **(16)**

12. (a) Differentiate the various types of component composition used in component based software engineering. **(16)**

(OR)

(b) Discuss the various types of architectural patterns for distributed system with suitable example. **(16)**