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**Question Paper Code: 31888**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Elective

Information Technology

01UIT904 - AGILE SOFTWARE DEVELOPMENT

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Define Agility.
2. List the advantages of pair programming.
3. Write short note on acceptance test in user stories.
4. 'Scrum encourages more frequent and smaller releases'. Do you agree with this statement? Justify your answer.
5. What is Test Driven Development (TDD)?
6. What are the qualities of a good Agile tester should have?
7. How to identify a bad design and provide the solution to avoid bad design?
8. State the Single Responsibility Principle in Agile design with example.
9. What are the common problems faced by non agile organizations while adopting agile?
10. Give the advantages of agile project implemented in cloud.

PART - B (5 x 16 = 80 Marks)

11. (a) Explain in detail about extreme programming in agile methodology. (16)

Or

(b) (i) List the principles behind the agile Manifesto. (8)

(ii) Differentiate scrum and feature driven development in agile development methodologies. (8)

12. (a) Briefly describe the following in Scrum framework with neat diagrams

(i) Product Back log (10)

(ii) Daily Scrum (6)

Or

(b) (i) Who are all involved in Scrum Framework? Explain the responsibilities of each scrum roles. (8)

(ii) “Tata systems” is an IT solution provider and “Mediclaim” - health information system” is the new project that ‘Tata systems’ is going to develop. After evaluating characteristics of the project and capabilities of the company, management has decided to develop this project using Scrum. Four characteristics or capabilities are given below:

(a) Tata systems have 10 – 12 well experienced and multi-skilled employees. Does this capability support Scrum approach? Justify your answer.

(b) Mediclaim, the health information system will have several requirement changes during the development life cycle. Does this characteristic support Scrum approach? Justify your answer.

(c) Mediclaim, the health information system has 10 different independent functions and three of them are marked as urgent requirements. Does this characteristic support Scrum approach? Justify your answer.

(d) Client of the Mediclaim project needs to use software with urgent functionalities first while other functions can be added later. Does this need align with Scrum approach? Justify your answer. (8)

13. (a) Write brief note on test driven development in agile testing with necessary diagrams. (16)

Or

(b) Explain in detail about overview of Agile testing. (16)

14. (a) With detailed description, List the principles of agile software design. Give appropriate example for each principle. (16)

Or

(b) Wrote short notes on

(i) Refactoring techniques. (8)

(ii) Continuous Integration. (8)

15. (a) Explain in detail about Risk and mitigation of Agile software development. (16)

Or

(b) Discuss the following:

(i) Challenges and benefits of agile (8)

(ii) Agile in distributed team (8)

