

Duration : 2 Hours

Marks : 60

Instructions: 1) Figures to the right indicate Full Marks.
2) All Questions are compulsory.

Q.1.A) Define the following in not more than 20-30 words:

5X1=05

- a. Iterative Model
- b. Agile Methodology
- c. Sprint
- d. Extreme Programming
- e. Commit in repository

Q.1.B) Match the Following and Rewrite the Matched Pairs :

5X1=05

1. Refactoring	A. Ensures that each and every line of code has been executed at least once.
2. Statement Coverage	B. Eliminate Unnecessary things
3. Lean Development	C. Improves existing computer code, without adding new functionality.
4. Validation	D. Method for checking software applications by providing the valid data sets as an input.
5. Positive Testing	E. Checking if an implemented application is useful to the end user.

Q.2. Answer the following:

- a) List out the phases of SDLC (Software Development Life Cycle). **02**
- b) Describe the prototyping model and specify one of its advantages. **03**
- c) Discuss the various terms in versioning of an application. **05**

Q.3. Answer the following:

- a) List any two features of Scrum. **02**
- b) Write two user stories for describing Digital Payments feature for Bank transactions. **03**
- c) Explain any five principles of Agile Methodology. **05**

Q.4. Answer the following:

- a) What is a product backlog? 02
- b) Explain the benefit of using Test Driven Development technique. 03
- c) Illustrate the purpose behind each of the Scrum Ceremonies / Scrum Meetings. 05

Q.5. Answer the following:

- a) State the purpose of Code Smells. 02
- b) Explain two advantages of Pair Programming. 03
- c) Determine the User Story Points for each of the below User Story and justify the same.: 05
(Reference : 1 means Least effort , 3 means medium effort and 5 means most effort,required. The below User Stories are for an Online Food Ordering App))

(a) As a user, I want to find nearby restaurants so that I can get food delivered to my address quickly.

(b) As a user I want to be able to rate my experience on various parameters such as food, delivery, payment, customer service for feedback

(c) As a user I want to know how much time food delivery will take so that I know how much I have to wait.

Q.6. Answer the following:

- a) List the four Black Box testing techniques. 02
- b) Differentiate between Continuous Integration (CI) and Continuous Delivery(CD) . (1 point) 03
- c) Illustrate State Transition testing with the help of state transition diagram and state transition table for login attempts of a user application.(Make and State your assumptions). 05