

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
BTech Summer 2022-23

Semester: 4
Subject Code: 203124253
Subject Name: Fundamentals of Software Engineering

Date: 24/03/2023
Time: 2.00pm to 4.30pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions (All are compulsory) (Each of one mark)**(15)**

1. What is the first step in the software development lifecycle?
 - a. System Design
 - b. Coding
 - c. System Testing
 - d. Preliminary Investigation and Analysis
2. What does the study of an existing system refer to?
 - a. Details of DFD
 - b. Feasibility Study
 - c. System Analysis
 - d. System Planning
3. RAD stand for _____.
4. Which of the following does not relate to Evolutionary Process Model?
 - a. Incremental Model
 - b. Concurrent Development Model
 - c. WINWIN Spiral Model
 - d. All of the above
5. Model selection is based on _____
 - a. Requirements
 - b. Development team & users
 - c. Project type & associated risk
 - d. All of the above
6. The process of developing a software product using software engineering principles and methods is referred to as _____.
 - a. Software Engineering
 - b. Software Evolution
 - c. System Models
 - d. Software Models
7. The reason for software bugs and failures is due to _____.
 - a. Software Developers
 - b. Software companies
 - c. Both A and B
 - d. None of the above
8. Define: Data Dictionary
9. Full form of SLOC _____.
10. The process to gather the software requirements from client, analyze and document them is known as _____.
11. Product line software developments depends on the reuse of existing software components to provide software engineering leverage.
 - a. True
 - b. False

12. SDLC stands for _____.
13. CASE stands for _____.
14. SQA stands for _____.
15. Define: Software Reuse.

Q.2 Answer the following questions. (Attempt any three) (15)

- A) Discuss the advantages and disadvantages of agile technology.
- B) Explain WH55 principle.
- C) What are the steps in software project planning? Explain in detail.
- D) Write down advantages and disadvantages of SCRUM framework.

Q.3 A) What is software risk? Explain all type of Software risk. (07)

B) Explain Waterfall model in detail with figure. (08)

OR

B) Explain Incremental model in detail with figure. (08)

Q.4 A) What is SRS? Why SRS is known as black-box specification of the system? Explain important characteristics which a good SRS should have. (07)

OR

A) List five requirements of Library management System. Draw DFD level-0 and DFD Level-1 for Library Management System. (07)

B) Write down differences between Black Box testing & White Box testing. (08)