

PARUL UNIVERSITY
FACULTY OF IT & COMPUTER SCIENCE
MCA / IMCA Winter 2019 – 20 Examination

Semester: 3 / 7
Subject Code: 05201202/5301402
Subject Name: Software Engineering

Date: 28-11-2019
Time: 10:30am to 1:00pm
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 Answer the following.**A. Answer the following in short. (05)**

1. Define Software Engineering.
2. Write the names of 7 requirement engineering tasks.
3. Define requirement analysis.
4. Write the name of the layers of Software Engineering.
5. List down component-level design technique for designing traditional components.

B. Fill in the blanks / Give the sentence true or false. (10)

1. Software is developed or engineered; it is not _____.
2. XP recommends the immediate creation of an operational prototype of that portion of the design. Called _____.
3. _____ means specifying beginning of project.
4. Requirement engineering begins with _____ and continues to _____.
5. CRC stands for _____.
6. V-Model is an enhancement over:
 - a) Agile process model
 - b) Spiral Model
 - c) Waterfall model
 - d) Extreme Programming
7. Speculation, Collaboration and learning are three phases of:
 - a) Scrum
 - b) Agile Process Model
 - c) Adaptive Software development
 - d) Spiral Model
8. Waterfall model is an iterative and incremental agile software development methodology for managing product development.
 - a) True
 - b) False
9. The spiral model is a realistic approach to the development of large-scale systems and software.
 - a) True
 - b) False
10. Which one of the following is not a phase of Prototyping Model?
 - a) Quick Design
 - b) Communication
 - c) Construction of Prototype
 - d) Engineer Product

Q.2 Answer the followings. (Any Five) (15)

1. Define Use Case with an example.
2. List down Software Applications and explain any three.
3. Explain two main features of Spiral Model with a neat diagram.

4. Explain Cohesion and its types.
5. Define Levels of testing.
6. Explain Idealized curve and Actual curve in Software Characteristics with diagram only.

Q.3 **Answer the following. (Any three)** **(15)**

1. Design an E-R diagram to show the relationship between Bank and Customer.
2. Elaborate Integration Testing in detail.
3. List down and define SQA Elements.
4. Draw a neat and clean diagram for Integrated CASE Environment.

Q.4 **Answer the following in detail.**

A. Describe Test Case Execution. **(05)**

B. (1) Construct a Data-Dictionary for Library Management System. **(05)**

B. (2) Define Black Box Testing methods with diagram. **(05)**

OR

B. (1) Define White Box Testing methods with diagram. **(05)**

B. (2) Define CASE Tools and list down the types of it. **(05)**