Seat No: _____ **Enrollment No: _____**

PARUL UNIVERSITY

FACULTY OF IT & COMPUTER SCIENCE

MCA, Winter 2017 – 18 Examination

Semester: 3 **Date: 27/12/2017**
Subject Code: 05201202 **Time: 10:30 am to 1:00 pm**
Subject Name: Software Engineering **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. Write short answers. **(05)**

1. Define Software Engineering.
2. What is Agile Process?
3. List out any four fundamental design concepts.
4. Define Cohesion.
5. Define Scrum.

B. Answer the following: (Each of 01 marks) **(10)**

1. RAD stands for
   a) Relative Application Development b) Rapid Application Development
   c) Rapid Application Document d) None of the mentioned
2. Which one of the following models is not allow to change after software development?
   a) Build & Fix Model b) Prototyping Model c) RAD Model d) Waterfall Model
3. Which one of the following is not a software process quality?
   a) Productivity b) Portability c) Timeliness d) Visibility
4. How many phases are there in Scrum ?
   a) Two b) Three c) Four d) Zero
5. Coupling is a qualitative indication of the degree to which a module
   a) can be written more compactly
   b) focuses on just one thing
   c) is able to complete its function in a timely manner
   d) is connected to other modules and the outside world
6. Agility is defined as the ability of a project team to respond rapidly to a change. True/False?
7. A Use-case actor is always a person having a role that different people may play. True/False?
8. Traceability is not considered in Requirement Analysis. True/False?
9. Full form of CASE is _____.
10. Which of the following is NOT the phase consisting on spiral model of software development?
    a) Planning b) Design c) Engineering d) Risk-Analysis

Q.2 Answer the followings

1. Define DFD. Explain any 2 components of DFD. **(03)**
2. List out review techniques. Explain Formal Technical Review. **(03)**
3. What is Black Box Testing? Explain ANY ONE Black Box Testing Technique. **(03)**
4. Discuss any 2 E-R diagram notations. **(02)**
5. What is Software Risk? List out the risk principles that are involved in a project. **(02)**
6. Compare Alpha Testing Vs. Beta Testing in short. **(02)**

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

1. Differentiate between software characteristics and hardware characteristics.
2. Discuss Six Sigma Software Engineering.
3. What is Software Quality Assurance? Explain its elements.
4. Discuss SQA Goals.

Q.4 Answer the following.

A. Explain W^5HH Principle in short. **(05)**

B. Draw level-0 and level-1 DFD for Library Management System. **(10)**

OR

B. Draw Use case diagram for Lab Management System. **(10)**