

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- September 2016

B.Tech V Semester

COURSE CODE: 10B11CI512

MAX. MARKS: 15

COURSE NAME: Software Engineering

COURSE CREDITS: 04

MAX. TIME: 1Hr

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Q.1 A courseware management system is used to manage courses or classes of an organization that specializes in providing training. Let us name the system that we will be designing as the Courseware Management System. The organization offers a variety of courses in a variety of areas such as learning management techniques and understanding different software languages and technologies. Each course is made up of a set of topics. Tutors in the organization are assigned courses to teach according to the area that they specialize in and their availability. The organization publishes and maintains a calendar of the different courses and the assigned tutors every year. There is a group of course administrators in the organization who manage the courses including course content, assign courses to tutors, and define the course schedule. The training organization aims to use the Courseware Management System to get a better control and visibility to the management of courses as also to streamline the process of generating and managing the schedule of the different courses.

- a) (2 marks) Draw a Use Case diagram for the above case study.
- b) (3 marks) Draw a class diagram for the above case study.
- b) (1.5 marks) Provide a Use Case Description for the use case "Manage Course Information".
- c) (1.5 marks) Model the Use Case "Manage Course Information" using an Activity diagram.

Q.2 a) (2 Marks) Identify the problems one would face, if he tries to develop a large software product without using software engineering principles.

b) (1 Mark) Evolutionary life cycle model is ideally suited for development of very small software products typically requiring a few months of development effort. (True/False). Justify.

Q.3 a) (1 Mark) Functional requirements address maintainability, portability, and usability issues. (True/False). Justify.

Q.3 a) (3 Marks) Identify at least two activities carried out during each phase of a spiral model. Also specify the two advantages of using spiral model.