

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2021

B.Tech V Semester

COURSE CODE: 10B11CI512

MAX. MARKS: 35

COURSE NAME: Software Engineering

COURSE CREDITS: 4

MAX. TIME: 2 Hours

Note: All questions are compulsory.

1. You have been appointed a software project manager for a company that services the genetic engineering world. Your job is to manage the development of a new software product. The work is Research and development oriented, but the goal to produce a product within the next year. What software process model(s) would you choose and why?
2. Discuss the relationships between generality and anticipation of change.
3. How to do documentation for maintenance, when we want to be agile?
4. Provide examples of three data abstractions and the procedural abstractions that can be used to manipulate them
5. Suppose you wish to model the elevator system of a multifloor building. The system is composed of m floors and n elevators. Each elevator has a set of buttons, one for each floor. The buttons light up when pressed and cause the elevator to visit the corresponding floor. Each elevator has an emergency button that, when pressed, causes a warning signal to be sent to the site manager ("out of service"). Each elevator has a mechanism to cancel its out-of-service status. Model this system in object-oriented style
6. A railroad crossing consists of one or more rail tracks that intersect a street. The crossing is protected by a gate that must be operated automatically in such a way that cars cannot enter the crossing while a train is going through it.
 - a. State clearly and precisely the requirements that should be satisfied by the system in order for it to operate safely and usefully?
 - b. Which features of the system are likely to change in different context
7. Design a Layered information system architecture
8. Suggest architecture for a system (such as iTunes) that is used to sell and distribute music on the Internet.
9. Why is highly coupled module difficult to unit test?
10. What are the relative advantages if using either the LOC or the function point metric to measure the size of a software product