Level: Bachelor   Semester: Fall   Year   : 2019
Programme: BE   Full Marks: 100
Course: Object Oriented Software Engineering   Pass Marks: 45
                                                 Time   : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Describe the V process model with its advantages and disadvantages.   7

     b) What do you mean by agile development? Why is it important? Explain the scrum software development in details.   8

2. a) What is Software scope? Effective software project management focuses on the four P's. Explain all.   8

     b) Explain different feasibility associated with software. Explain how human resources and reusable software resources aid in software management activities.   7

3. a) What is requirement analysis? Explain different elements of requirement analysis model.   7

     b) What do you mean by scenario based modeling and behavioral modeling? Explain with examples.   8

4. a) Obtain 1-level DFD for the Food Ordering System: 7

     Customer can place an Order of the food. The Order Food process receives the Order, forwards it to the Kitchen, store it in the Order data store, and store the updated Inventory details in the Inventory data store. The process also delivers a Bill to the Customer. Manager can receive Reports through the Generate Reports process, which takes Inventory details and Orders as input from the Inventory and Order data store respectively. Manager can also initiate the Order Inventory process by providing Inventory order. The process forwards the Inventory order to the Supplier and stores the updated Inventory details in the Inventory data store.

     b) What do you mean by design model? What are the elements of effective interface design? Explain the evaluation of the user interface with evaluation cycle diagram.   8

5. a) Demonstrate use of scenario based testing for thread testing with suitable example. 7

   b) What is FTR? Why is it important in SQA activities? Explain how FTR is conducted. 8

6. a) Demonstrate relationship of mean-time-between-failure (MTBF), mean-time-to-failure (MTTF), mean-time-to-repair with service availability with suitable example. 7

   b) Software engineering will change more rapidly. Explain few trends, methods and tools that are likely to have influence on software engineering. 8

7. Write short notes on: (**Any two**) 2×5
   a) Functional Vs. Non-functional requirements
   b) People CMM
   c) Alpha and Beta testing