

Total No. of Pages:2

— 96 —

Roll No.....

V SEMESTER

B.Tech.[SE]

SUPPLEMENTARY EXAMINATION

February-2019

SE301

Object Oriented Software Engineering

Time: 3:00 Hours

Max. Marks:40

Note: Attempt any Five questions. Assume suitable missing data, if any.

Q.1 [a] Differentiate the following:

(i) Object oriented analysis and structured analysis. [2]

(ii) Centralized and de-centralized structure in sequence diagram. [2]

[b] Explain various methodologies for the development of object oriented software system? [4]

Q2 [a] For a construction company a software is to be developed with the following specifications:

Company takes many projects, each project is at a particular location. Each project is supervised by a manager assigned by the CEO of the company. Record is maintained for the start of the project till its completion. Under each manager there is a team of people of different category. Each project is marketed by the team of marketing managers.

(i) Identify the use cases and the actors.

(ii) Draw the use case diagram and write the use case description of any one use case. [4]

[b] What is extreme programming? Explain various steps involved in extreme programming. [4]

Q3. Identify various classes, relationships and draw the class diagram for problem given in Q2[a]. [8]

Q4.[a] Draw a use case scenario diagram for any use case of problem given in Q2[a]. Also, derive a test case matrix from the above use case scenario diagram. [4]

[b] Consider process of withdrawing money from the ATM machine. Write the sequence diagram for this process. [4]

P.T.O

Q.5 [a] What do you understand by state based testing? Explain the alpha and omega states with the help of an example? [4]

[b] Explain the steps to that need to carry out during the object oriented design process. [4]

Q6. Consider an example of queue where two operations (insert and delete) are allowed. There are four events namely new, insert, delete and destroy with the following purposes:

New: To create an empty queue.

Insert: To add an element in the queue.

Delete: To remove an element from the queue.

Destroy: To destroy the queue after completion of its requirements.

Identify the states and draw the state chart diagram. [8]

Q7.[a] The project is to design and implement an online book store. The book store will have following users: the buyer, the administrator, and a data entry operator. Some of the processes are login, search books, payment, manage details and so on. Draw the activity diagram to buy books. [4]

[b] "Testing is not related to only one phase of the software development life cycle". Comment on the correctness of this statement. [4]

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