CBCS SCHEME

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17CS551

Fifth Semester B.E. Degree Examination, Aug./Sept. 2020
Object Oriented Modeling and Design

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions, choosing ONE full question from each module.***

Module-1

1 a. What is Object Orientation? Explain its aspects with example. **(08 Marks)**
b. Explain Object Oriented themes. **(06 Marks)**
c. Briefly explain three models used in OO modeling and Design. **(06 Marks)**

OR

2 a. Define the following terms with example:
i) Link and association ii) Multiplicity iii) Visibility **(06 Marks)**
b. Explain Modeling concept. Write the class model of windowing system. **(10 Marks)**
c. Write a note on Reification. **(04 Marks)**

Module-2

3 a. What is Use Case diagram? Mention its uses. **(05 Marks)**
b. Draw and explain the use case diagram of order entry subsystem for RMD and all use cases involving the customer actor. **(07 Marks)**
c. Explain intermediate use case description with example. **(08 Marks)**

OR

4 a. What is the use of system sequence diagram? Explain SSD notations with neat sample system sequence diagram. **(10 Marks)**
b. Explain all the necessary steps for developing Orderitem state chart. **(10 Marks)**

Module-3

5 a. Explain the Software development stages in detail. **(10 Marks)**
b. Describe the steps in constructing a domain state model. **(10 Marks)**

6 a. Explain Waterfall development and iterative development life cycles. **(06 Marks)**
b. Describe different ways of finding new system concept. **(06 Marks)**
c. Explain an overview of domain analysis. **(08 Marks)**

Module-4

7 a. Explain the overview of object oriented programs with neat diagram. **(06 Marks)**
b. Describe the object oriented design models. **(08 Marks)**
c. Explain the responsibilities of class objects with Look up item availability use case. **(06 Marks)**

OR

8 a. Illustrate four types of standard design classes. **(06 Marks)**
b. Explain how to update the design class diagram. **(06 Marks)**
c. Discus the implementation issues for three-layer design. **(08 Marks)**

Module-5

9 a. What is design pattern? Explain four essential elements of design pattern. **(08 Marks)**
b. Explain how to select a design patter. **(06 Marks)**
c. Briefly explain how to use a design pattern. **(06 Marks)**

OR

10 a. List any five design problems and explain how design patterns solve them. **(10 Marks)**
b. Explain the consequences of Singleton and adaptor patterns. **(10 Marks)**

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