

No. of Printed Pages : 03

Roll No.

BB584

M. Tech. EXAMINATION, May 2019

(Second Semester)

(B. Scheme) (Re-appear Only)

(CSE)

CSE552B

SOFTWARE DESIGN AND CONSTRUCTION

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from Sections A, B, C and D.

(2-22/20) M-BB584

P.T.O.

Section A

1. Describe the following : **15**
 - (i) Data centered architecture
 - (ii) Call return architecture
 - (iii) Layered architecture.
2. You are given the responsibility of planning a public library in your locality. What design abstractions might arise in your mind ? Draw a diagram showing different abstractions used as the plan develops. **15**

Section B

3. List the different types of interactions diagrams used in UML ? Briefly explain each with suitable example. **15**
4. Create a class hierarchy to organize the following drink classes : alcoholic non-alcoholic, grape-juice, mineral water, lemonade, beer and wine. Classes should be related to one another by super-class sub-class hierarchy. **15**

Section C

5. (a) Write a program in C++ to demonstrate the constructor overloading in a class. **10**
(b) Describe the effect of deriving a class in public, private and protected mode. **5**
6. (a) Define a virtual function. Explain its relevance. **5**
(b) Define inheritance. Explain different types of inheritance with diagram. **10**

Unit IV

7. (a) Define a friend function. List some characteristics of friend function. **6**
(b) Write the necessary code in C++ to overload new[] and delete[]. **9**
8. Write a class template to implement different operations of a stack. **15**