



Course Name & Code: CSE3001 – Software Engineering

Class Number: VL2019205001199, 561,568, 578, 590, 610, 629, 846 12529 12529

Slots: A2

Exam Duration: 1Hr. 30Mins.

Maximum Marks:50

General instruction(s):

- Problem statement can provide basic idea about the system.
- All your assumptions can be explicitly mentioned while answering Questions.

Problem Statement:AUTOMATIC MUSEUM GUIDE

Consider an automatic museum guide that works in both indoor and outdoor using location technology for triggering media. Outdoor content triggered using Google maps and GPS while Indoor exhibitions enable users' floor map graphics. The application is to be designed to request a visitor to receive guidance in the form of audio, video, text and Augmented Reality forms of content.

This app also provides emergency exit details based on users' location and guide them towards safety point. Apart from the above functions administrator can have a track of user activities from their office.

S.No	Question
1.	Design a DFD, ER-D and a State transition model for the given problem statement and justify which model explores the problem extensively. (15)
2.	Construct a sequence diagram and activity diagram for the above problem statement by considering the interaction between users and Automatic Museum to select the mode such as audio/video/text/augmented reality. (8+7) <i>Constrain: Interaction is designed in such a way that not more than three users are requesting for a same mode simultaneously.</i>
3.	Generate a suitable architecture diagram using design principles for the application automatic museum guide. (10)
4.	a) Why Coupling and cohesion are important in design techniques, narrate with its types. b) Write about four important UI design principles with example

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