H.T.No. | | | | | | | | | | |

Code No: CS2903 **GEC-R17**

M. Tech I Semester Regular Examinations, February 2018

OBJECT ORIENTED SOFTWARE ENGINEERING

(Computer Science Engineering)

Time: 3 Hours **Max. Marks: 60**

Note: Answer Any **FIVE** Questions. All Questions Carry Equal Marks.

5 × 12 = 60M

1. a) Explain how do the use of software engineering principles help to develop software products cost-effectively and timely. Elaborate your answer by using suitable example. (6M)
   b) Is software engineering a layered technology? If Yes/No justify your answer. (6M)
2. a) Explain various types of software requirements. What is the role of non-functional requirements for developing a software? (6M)
   b) List out various requirements engineering process. Explain requirement elicitation in detail. (6M)
3. a) What is structured analysis? How it is different from object-oriented analysis? (4M)
   b) Explain various design methodologies for developing a software. How can you verify your design? Explain with a suitable example. (8M)
4. a) Enumerate different types of coupling that might exist between two modules. Explain with examples. (6M)
   b) What are the advantages of a modular design? Explain various design principles. (6M)
5. a) What is the concept of software modelling? Explain various advantages of software modelling. (6M)
   b) Explain 4+1 architectural view model. (6M)
6. Draw UML use-case diagram, class diagram and sequence diagram for Supermarket Management System. (12M)
7. a) Explain the process of project management. (6M)
   b) How does a software project manager select a set of software engineering work tasks? (6M)
8. a) Explain various project planning activities. (6M)
   b) Assume that the size of an organic type software (assume that it is a basic COCOMO) has been estimated to be 32,000 lines of source code. Assume that the average salary of software engineers be Rs. 15,000/- month. Determine the effort required to develop the software product and the nominal development time. (6M)

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