

15201

Roll No. _____

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15201

M. Tech. I - Sem. (Main) Exam., Dec. - 2018

Software Engineering

1MSE1 Software Engineering Design Methodology

Time: 3 Hours

Maximum Marks: 100

Min. Passing Marks: 33

Instructions to Candidates:

Attempt any five questions, Marks of questions are indicated against each question. Draw neat and comprehensive sketches wherever necessary to clearly illustrate your answer. Assume missing data suitable if any and specify the same. Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

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Q.1 (a) Explain the Various Phases of Rapid Prototyping. [10]

(b) Differentiate Rapid Application Development and Traditional SDLC in Software Development Process with the help of example. [10]

Q.2 What do you mean by Object Modeling Technique (OMT)? Using the UML graphical notation for object classes, design for a bank account, identifying attributes and operations. Use your own experience to decide on the attributes and operations that should be associated with these objects. [20]

Q.3 (a) Discuss classification and types of CASE tools. [10]

(b) Schematically draw the architecture of CASE environment. [10]

- Q.4 What is event based modeling in software development? Design an event based model with state diagram & sequential diagram with the help of suitable example. [20]
- Q.5 Explain Function Point Analysis (FPA) and COCOMO Model for software cost estimation with the help of any case study. [20]
- Q.6 (a) What is Spiral Model? Explain Eight Management Elements of spiral model. [10]
(b) How does the Spiral Model address the need of accurately determining the software requirements? [7]
(c) Why Spiral Model is called Meta Model? [3]
- Q.7 Explain following with suitable examples: [20]
(i) Reverse Engineering <http://www.mgsuonline.com>
(ii) SSADM
(iii) Visual Modeling
(iv) Activity Diagram
- Q.8 (a) Explain why the Process of Project planning is iterative and why a plan must be continually reviewed during a software project? [10]
(b) Some very large software projects involve writing millions of line of code. Explain why the effort estimation models, such as COCOMO, might not work well, when applied to very large systems. [10]
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