

SVKM's NMIMS
MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING

Programme: B. Tech (Computer)
Batch : 2013-2014

Year: III

Semester: V

Academic Year: 2013-2014

Subject : **Software Engineering**

Date : 12/06/2014

Marks: 100

Time: 10.00 am to 1.00 pm

Durations: 3 (hrs)

Re-Examination

Instructions: Candidates should read carefully the instructions printed on the question paper and on the cover of the answer book, which is provided for their use.

NB:

1. Question No.1 is compulsory. Out of remaining questions, attempt any 4.
2. In all , 5 questions to be attempted.
3. All questions carry equal marks.
4. Answers to each new question to be started on fresh page.
5. Figure to the right indicate full marks.



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|-----|----|--|----|
| Q.1 | a) | Why is software engineering important? | 5 |
| | b) | Explain White Box and Black Box Testing | 5 |
| | c) | What are the myths and reality from the perspective of practitioners. | 5 |
| | d) | Define system reliability and availability. | 5 |
| Q2. | a) | Explain the different styles of Software Architectures. | 10 |
| | b) | What are requirement engineering tasks? Explain elicitation and elaboration. | 10 |
| Q3. | a) | Consider the development of an online examination system for a university providing following functionalities Candidate registration, Exam Administration, Automatic Evaluation, Publishing rank list. Describe the non function Requirements of the System. | 10 |
| | b) | What is meant by software quality assurance? Mention the goals of software quality group | 10 |
| Q4. | a) | Discuss the golden rules for designing a User Interface | 10 |
| | b) | Explain the role of functional Independence, Cohesion and Coupling with respect to modular design. | 10 |
| Q5. | a) | How analysis model is translated into design model? Explain with diagram. | 10 |
| | b) | Use COCOMO II model to estimate the effort required to build software for Simple Application that produces 12 screens, 10 reports, and will require approximately 80 software components. Assume average complexity and average developer/environment maturity for which productivity can be assumed as 13. Complexity weight for each screen is 2 and for each Report is 5. All components are difficult hence for each component complexity weight is assumed as 10. | 10 |

- Q6. a) What are the metrics for software product, process and project? 10
b) What are different categories of software? State example of each category. 10
- Q7. Write detailed notes on any two of the following: 20
a) Software Configuration Management
b) Re-engineering
c) Test strategies for conventional software
d) Incremental Process model

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