SVKM'S NMIMS

MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING

Program: B. Tech (Computer)

Subject: Software Engineering

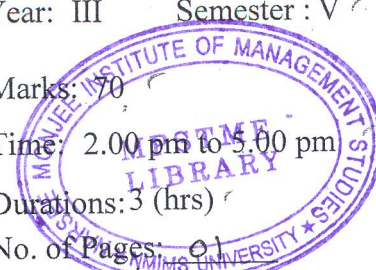Date : 15 January 2019

Academic Year: 2018-2019

Year: III   Semester : V

Marks: 70

Time : 2.00 pm to 5.00 pm

Durations: 3 (hrs)

No. of Pages: 01

Re-examination (2017-18/ 2018-19)

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.

2) Out of remaining questions, attempt any 4 questions.

3) In all 5 questions to be attempted.

4) All questions carry equal marks.

5) Answer to each new question to be started on a fresh page.

6) Figures in brackets on the right hand side indicate full marks.

7) Assume suitable data if necessary.

Q.1

a) Design Data Flow Diagram(Level 0, 1 & 2) for "amazon.com online shopping system"   [7]

b) Explain the three characteristics of software, also explain which perspective model is suitable   [3]
for business applications and why?   [4]

Q.2

a) Which evolutionary process model is suitable for "amazon.com online shopping system".   [7]
Explain the model with neat diagram.

b) What is control structure testing? Explain the loop testing with suitable diagrams.   [7]

Q.3

a) List and Explain the four different models in the design and analysis of user interface.   [7]

b) Explain the working of top down integration testing with its advantages and disadvantages.   [7]

Q.4

a) Why Partitioned Architecture design required? Explain Vertical and horizontal partitioned   [7]
architecture with neat diagram.

b) Explain process and project metrics. How it will help the organization to improve the Quality?   [7]

Q.5

a) Explain Extreme Programming (XP) agile model with its key features and neat labelled diagram.   [7]

b) Find the software cost estimation and time estimation for "college admission system" using   [7]
Function Point estimation. Consider the project is of average complexity. The weighting factor
of External Input, External Output, External Inquiries, Internal Logical Files, and External
Interface File is 4, 5,4,10 and 7 respectively. Write down the assumptions.

Q.6

a) Design the Control Flow Diagram(CFD) for "amazon.com online shopping system"   [7]

b) Which architectural style is suitable for college blackboard system? Explain with neat diagram.   [7]

Q.7

a) List and Explain the Software Quality Assurance tasks in detail.   [7]

b) Explain the role and content of the SCM Repository with neat figure.   [7]

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1/1