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

Programme: B. Tech (IT) Year: III Semester: V

Academic Year: 2019-20

Subject: Software Engineering

Date: 07 November 2019

Marks: 70
Time: 10.00 am - 1.00 pm
Durations: 3 (hrs)
No. of Pages: 02

Final Examination (2019-20)/ Re-Examination (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.

1) Question No. **01** is compulsory.
2) Out of remaining questions, attempt any **04** questions.
3) **In all 05 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.**

1.	(a)	Describe the importance of Software Engineering. What should be steps taken under the software development of life cycle (SDLC).	(5)
	(b)	Explain in details about golden rules for the User Interface Design in software engineering.	(5)
	(c)	How Software Testing Principles are used to make software as a quality product?	(4)
2.	(a)	Narrate the importance of software requirements specification. Differentiate between functional and non-functional requirements. With appropriate block diagram explain the requirement engineering process.	(7)
	(b)	Explain Spiral Model in detail and under what circumstances is it beneficial.	(7)
3.	(a)	Explain in details about agile principles and define scrum in Agile process model of software Engineering.	(7)
	(b)	Define analysis modelling approaches with elements of analysis model and explain in details about to involve in design process.	(7)
4.	(a)	What is Software Architecture? List the system structuring styles with suitable diagram.	(7)
	(b)	Explain in details about unified process model with each phase of explanation.	(7)

5. (a) Design and draw context or level0 and level1 data flow diagram for **Food Ordering System** with proper explanation. (7)

(b) Discuss the differences between black box and white box testing models. Discuss how these testing models may be used together to test a program schedule. (7)

6. (a) Explain in details about system testing and its type related to quality software engineering. (7)

(b) Explain in details about software quality and technique for improving Software quality. (7)

7. Write short note on (any two) (14)

(i) Capability Maturity Model
(ii) Crystal framework in Agile
(iii) Alpha Testing V/s Beta Testing
(iv) McCall's Software Quality Factors
