USN | | | | | | | | | |

R. V. COLLEGE OF ENGINEERING
Autonomous Institution affiliated to VTU
V Semester B. E. Examinations Nov/Dec-18
Computer Science and Engineering
SOFTWARE ENGINEERING

Time: 03 Hours   *Maximum Marks: 100*
Instructions to candidates:
1. Answer all questions from Part A. Part A questions should be answered in first three pages of the answer book only.
2. Answer FIVE full questions from Part B.In Part B question number 2, 7 and 8 are compulsory. Answer any one full question from 3 and 4 & one full question from 5 and 6

PART-A

1	1.1	Give one difference between system engineering and software engineering process?	01
	1.2	Suggest the development models for the following problems: a) Website for a Retail grocery store, b) Online examination system for college.	02
	1.3	Detailed study of exciting system is referred to as _____.	01
	1.4	The basic tool used in structured design is a _____.	01
	1.5	What is the difference between review and testing?	01
	1.6	List any two methods that aids risk identification.	01
	1.7	Why project planning is required?	01
	1.8	If an architecture of the proposed system has been designed specifying the major components in the system and source code of similar components is available in organization repository, which method will be used for estimation? Justify.	02
	1.9	List the two phases of system testing.	02
	1.10	Agile software development is based on _____ and _____ models of development.	02
	1.11	User requirements are expressed as _____ in Extreme programming.	01
	1.12	List any two difficulties that arise during Requirements Elicitation.	02
	1.13	Which property of *SRS* is depicted by the following statement: 'Conformity to a standard as maintained'. Justify.	02
	1.14	_____ and _____ diagrams of *UML* represent Interaction modeling.	01

PART-B

2	a	Describe the two process models designed to support process Iteration?	08
	b	Illustrate with a n example the following properties of an *SRS*: i) Unambiguous ii) Verifiable.	04

	c	Construct a *DFD* for *ATM* transaction to withdraw amount, updating transaction, validation.	04

3	a	Applying the prototyping model of development to a scenario, explain the following:
		    i) Deliverables
		    ii) Advantages.
			04

	b	With an example explain Timeboring model.	04
	c	Compare Agile development method with traditional software development process.	04
	d	List any four risk items encountered in a project development process and the techniques for managing them.	04
		OR	
4	a	Explain the three levels of project monitoring.	06
	b	For a group student project being done in a semester course, list the major risks that a typical project will face and risk mitigation strategy for the high priority risks.	06
	c	What is role of effort estimation in a project? Why is it important to this estimation early?	04
5	a	Define cohesion? Explainany four types of cohesion with examples.	10
	b	Construct a structure chart to calculate salary of an employee.	06
		OR	
6	a	Explain the major steps in structured design methodology.	08
	b	Construct a sequence diagram and collaboration diagram for an exam system.	08
7	a	With a neat diagram explain Clean room software development process.	08
	b	With an example, define any two types of critical system.	04
	c	Distinguish between software inspection and software testing with an example.	04
8	a	What are the principles of Agile methodology?	05
	b	With a neat diagram, explain extreme programming.	06
	c	What are the advantages and challenges of cloud based software development life cycle.	05