Subject Name: SOFTWARE ENGINEERING
Subject Code:2153202 - QB

Faculties: Ms. Hemali Shah, Ms. Priyanka Garach

Sr No	Chapter/Unit Name / Questions	Marks
	CHAPTER NO - 1 : Software process Models and lifecycle:	
	TOPIC:1 Basics of Software Engineering Software Product, Product, Software Processes, Evolving Role of Software, Software: A Crisis on the Horizon and Software Myths, Software Engineering: A Layered Technology	
Sr No	**SHORT QUESTIONS**	**Marks**
1	Once we write the program and get it to work, our job is done. State True/False. **(Nov-2011)[LJIET]** **Ans : False**	**01**
2	Once we write the program and test it, our work is not over. State True/False. **(May-2013)[LJIET]** **Ans: True**	**01**
3	A software system exists for one reason: to provide value to its user. State True/False. **(Nov-2011)[LJIET]** **Ans: True**	**01**
4	Explain Software as a Product. **(ICT-Nov-2016)[LJIET]**	**01**
5	Software does not "wear out" but it does deteriorate. Why? **(ICT-Nov-2016)[LJIET]**	**01**
6	What is the difference between system and Application software? **(ICT-Nov-2016)[LJIET]**	**01**
7	What is software engineering? **[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Explain Software Engineering as a Layered Technology. **(Nov-2011) (ICT-Dec-2015) (ICT-Nov-2016) (New-Apr-2017)(New-Nov-2017)(ICT-Nov-2017)[LJIET]**	**03**
2	Distinguish between a program and a software product. **(Nov-2011)[LJIET]**	**03**
3	How do we define software engineering? Draw and explain software engineering layers. **(May-2012)[LJIET]**	**07**
4	What is Software Engineering? What is the role of software engineer. Compare Hardware and Software product characteristic. **(Jan-2013)[LJIET]**	**07**
5	Explain the difference between software and hardware characteristics. **(Nov-2013) (ICT-Dec-2015)[LJIET]**	**04**
6	What is Software Engineering ? What is Process ? What is Product? **(May-2014) (ICT-Nov-2016) (ICT-May-2019)[LJIET]**	**07/03**
7	Define Software Engineering. Draw and explain Software Engineering layers. **(Nov-2014)(ICT-Nov-2018)[LJIET]**	**04/07**
8	Define software engineering. Draw and explain software engineering layers with diagrams. **(Oct-2016)[LJIET]**	**07**
9	What is Software Engineering? Explain Software Engineering: A Layered Technology. **(New-Oct-2016)[LJIET]**	**07**
10	What is Process? Discuss the process framework activities.**(New-Apr-2018)[LJIET]**	**03**
11	Explain Software Characteristics in detail. **(ICT-Nov-2018)[LJIET]**	**03**
12	Explain various categories of Software in Detail. **(ICT-Nov-2018)[LJIET]**	**07**
13	Discuss all process Framework activities of Software Engineering. **(ICT-Nov-2018)[LJIET]**	**04**

	TOPIC:2 Software Process Models Study of different Software Process Models, The Linear Sequential Model, The Prototyping Model, The RAD Model, Evolutionary Process Models, Component-Based Development, Process, Product and Process, Object Oriented Software Engineering	
Sr No	**SHORT QUESTIONS**	**Marks**
1	Phase pattern defines a problem associated with SE action. State True/False. **(Nov-2011)[LJIET]** **Ans: FALSE (Phase patterns (define the sequence or flow of framework activities that occur within a process)**	**01**
2	Which model incurs more cost? **(Nov-2011)[LJIET]** a) RAD b)Prototyping c) Spiral d) All of these. **Ans: a) RAD**	**01**
3	Software configuration belongs to which of the following activities? **a) Umbrella activity** b) Economic activity c) None of these d)All of the above **(Nov-2011)[LJIET]** **Ans: a) Umbrella activity**	**01**
4	What is SDLC? **(ICT-Nov-2016)[LJIET]**	**01**
5	What is a Prototype? **(May-2017)[LJIET]**	**01**
6	Which is the most important phase of SDLC? **(May-2017)[LJIET]**	**01**
7	What is the goal of the requirements analysis and specifications phase of software development life cycle? **(May-2017)[LJIET]**	**01**
8	The most important feature of spiral model is A) requirement analysis **B) risk management.** C) quality management D) configuration management. **(New-Apr-2017)[LJIET]** **Ans: B) risk management.**	**01**
9	Define Process. **[LJIET]**	**01**
10	Define Product **[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Using example explain the spiral model. **(Nov-2011)[LJIET]**	**3.5/4**
2	Explain Software Prototyping. **(Nov-2011)[LJIET]**	**3.5/4**
3	Describe generic view of software Engineering. **(May-2011)[LJIET]**	**07**
4	Explain in brief the spiral model. **(May-2011)[LJIET]**	**07**
5	Explain in brief the process model which is used in situations where requirements are well defined and stable. **(May-2011)[LJIET]**	**07**
6	What do you mean by software model? Explain each model in detail. **(Nov-2011)[LJIET]**	**07**
7	Explain incremental model for system development. Differentiate it with spiral model. **(May-2012)[LJIET]**	**07**
8	What is software prototyping? Explain its significance in software engineering with example. **(May-2012)[LJIET]**	**07**
9	Draw and explain Process Framework. **(May-2012)[LJIET]**	**07**
10	Explain Spiral Model and its advantages. Compare Prototype Model and Spiral Model. **(Jan-2013)[LJIET]**	**07**
11	Explain Spiral model with suitable example. Also explain how it differs from Software Prototyping model. **(May-2013)[LJIET]**	**07**
12	Explain the process model which is used in situations where the requirements are well defined. **(May-2013)[LJIET]**	**07**
13	Explain in detail the process model which is normally suited for development of large-scale software system. **(May-2013) (Nov-2013)[LJIET]**	**07**

14	List and explain very briefly various activities of software engineering process framework. **(Nov-2013) (ICT-Dec-2015)(ICT-Nov-2017)(ICT-May-2019)[LJIET]**	**04/03**
15	Write short note on : Software Prototyping. **(Nov-2013)[LJIET]**	**07**
16	Explain Spiral Process Model and its advantages. **(May-2014) (ICT-Nov-2016)[LJIET]**	**07/04**
17	Explain Prototype model and compare it with Water Fall process model. **(May-2014) (ICT-Nov-2017)[LJIET]**	**07**
18	Describe two main features of Spiral model and discuss working of Prototyping model with its diagram. **(Nov-2014)[LJIET]**	**07**
19	Discuss umbrella activities and its role in software development life cycle (SDLC). **(Nov-2014) (ICT-Nov-2016) (May-2018) (ICT-Nov-2018)[LJIET]**	**07/04**
20	Discuss all generic frame work activities of software engineering with respect to any one process model. **(Nov-2014) (May-2017)[LJIET]**	**07**
21	Discuss Incremental process model with its diagram and compare with Waterfall model. **(Nov-2014)[LJIET]**	**07**
22	Explain spiral model and Concurrent Development Model. **(May-2015)[LJIET]**	**07**
23	Compare Prototype and RAD Process Model. **(May-2015) (Dec-2015) (New-Oct-2016) (New-Apr-2017)(ICT-May-2019)[LJIET]** Compare prototype and RAD model. **(New-Nov-2017) [LJIET]**	**07/04**
24	Compare Incremental and Waterfall Process Model. **(May-2015)[LJIET]**	**07**
25	Explain RAD Model and Spiral Model with their respective diagram. **(ICT-Dec-2015)[LJIET]**	**07**
26	Explain spiral model and describe its advantages over waterfall model. **(Dec-2015) (May-2017)[LJIET]**	**07**
27	Compare Incremental and RAD Process Model. **(Dec-2015)[LJIET]**	**07**
28	Outline the software development life cycle. Briefly describe each of the stages, its relation to other stages and its overall importance. **(May-2016)[LJIET]**	**07**
29	Spiral model is a realistic approach to the development of large-scale systems & software. Justify & explain the model. **(May-2016)[LJIET]**	**07**
30	What is the importance of process model in development of software system? Explain prototype process model. **(New-May-2016)[LJIET]**	**07**
31	Explain the process model which is used for development of large-scale system. **(New-May-2016)[LJIET]**	**07**
32	Compare Incremental and Waterfall Process Model. Explain Incremental Model in detail. **(ICT-Nov-2016)[LJIET]**	**04**
33	Discuss all process frame work activities of software engineering. **(ICT-Nov-2016)[LJIET]**	**04**
34	Explain in brief a software process model which is known as Meta Model. **(Oct-2016) (ICT-May-2019)[LJIET]**	**07**
35	Explain a software development process model which emphasizes a short development cycle. **(Oct-2016)[LJIET]**	**07**
36	Explain Spiral Model in detail. **(New-Oct-2016)[LJIET] OR** Explain Spiral Model in Detail. State its Advantages and Disadvantages.**(ICT-Nov-2018)[LJIET]**	**07/04**
37	Explain the process model which is normally suits for development of large-scale software system. **(New-Nov-2017)[LJIET]**	**04**
38	Explain RAD Process Model. **(ICT-Nov-2017)[LJIET]**	**03**
39	Explain Waterfall process model. **(New-Apr-2018)[LJIET]**	**07**
40	Compare Waterfall Model and Spiral Model in Software Engineering. **(ICT-Nov-2018)[LJIET]**	**03**
	CHAPTER NO - 2 : Project Management Concepts & Project	

	Metrics:	
	TOPIC:1 The Management Spectrum The Management Spectrum, People, Product, Process, Project, The W5HH Principle	
Sr No	**SHORT QUESTIONS**	**Marks**
1	List Four P's of Project Management. **[LJIET]**	**01**
2	Name the stack holders require for different software development activity? **[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Explain the W^5HH principle. **(May-2011)(ICT-Nov-2016)[LJIET]**	**07**
2	What is W5HH principle? Explain in detail. **(May-2012)(ICT-Nov-2017)[LJIET] OR** Explain W5HH Principle in detail.**(ICT-Nov-2018)[LJIET]**	**07**
3	Define FOUR Ps for project management and explain them in detail. **(May-2012)(ICT-Nov-2018)[LJIET]**	**07**
4	Explain Software Project Management and W5HH Principle. **(Jan-2013)(May-2015) (ICT-Dec-2015)(Dec-2015)(May-2017)(New-Nov-2017)[LJIET]**	**04/07**
5	Write short note on: Software Project Management. **(May-2013) (Nov-2013)[LJIET]**	**07**
6	Describe FOUR Ps for Project Management and explain any THREE in detail. **(Nov-2014) (May-2018)[LJIET]**	**07**
7	Explain W5HH principle with respect to software project management. **(Nov-2014)[LJIET]**	**07**
8	Explain 4 P's of Effective Project Management in detail. **(ICT-Nov-2016)(ICT-May-2019)[LJIET]**	**07**
9	Explain W5HH principal which lead to the definition of key project characteristics & resultant project plan. **(Oct-2016)[LJIET]**	**07**
10	List out FOUR Ps for project management and explain them in depth. **(Oct-2016)[LJIET]**	**07**
11	Explain different tasks of Project Manager in Detail. **(ICT-Nov-2018)[LJIET]** **[Note – It may ask in Unit-3]**	**07**
	TOPIC:2 Software Matrics Metrics in the Process and Project Domains (FP & LOC), Software Measurement, Metrics for Project and Software Quality	
Sr No	**SHORT QUESTIONS**	**Marks**
1	In function point analysis, value adjustment factors used to rate the system are A) 10 B) 14 C) 20 D) 12 **(New-Apr-2017)[LJIET]**	**01**
2	Define LOC. **[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Explain function point analysis method. Compute the function points for the following data set: Inputs =8, Outputs= 12, Inquiries = 4, Logical files = 41, Interfaces =1 and Σ Fi = 41. **(May-2013) (Nov-2013)[LJIET]**	**07**
2	Compute function point value for a project with the following domain characteristics: No. of I/P = 30 No. of O/P = 62 No. of user Inquiries = 24 No. of files = 8 No. of external interfaces = 2 Assume that all the complexity adjustment values are average. **(New-Apr-2017)[LJIET]**	**03**
3	Explain LOC and function point's matrix for project size estimation.**(ICT-Nov-2017)[LJIET] OR**	**07**

	Explain function point's matrix for project size estimation. **(ICT-May-2019)[LJIET]**	
	CHAPTER NO - 3 : Software Project Planning, Scheduling and Tracking:	
	TOPIC:1 Project Planning And Estimation Project Planning Objectives, Software Project Estimation using COCOMO Model, Software Scope and Resources, Empirical Estimation Models, Automated Estimation Tools, Basic Concepts and Relationship Between People and Effort,	
Sr No	**SHORT QUESTIONS**	**Marks**
1	Software_____ & _____ estimation will never be an exact science. **a) Cost & Effort** b) Cost & Time c) Scope & Effort d) None of these **(Nov-2011)[LJIET]** **Ans: a) Cost & Effort**	**01**
2	In order to develop a project schedule, a task set must be _____ on the project time line. a) Assign b) Completed c) None of these **d) Distributed**. **(Nov-2011)[LJIET]** **Ans: d) Distributed**	**01**
3	The first activity in software project planning is the determination of. a) Software Size **b) Software Scope** c) Software Prize d) All of the above. **(Nov-2011)[LJIET]** **Ans: b) Software Scope**	**01**
4	A statement of software scope must be. a) Free **b) Bounded** c) None of these d) All of the above **(Nov-2011)[LJIET]** **Ans: b) Bounded**	**01**
5	What is Task set? **(ICT-Nov-2016)[LJIET]**	**01**
6	_____ is a collection of software engineering work tasks, milestones, and deliverable that must be accomplished to complete a particular project. **(New-Apr-2017)[LJIET]** **Ans: A task set**	**01**
7	Which of the following is not a direct measure of SE process? A) Efficiency B) Cost C) Effort Applied D) All of the mentioned **(New-Apr-2017)[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Explain Software Project Plan. **(Nov-2011)[LJIET]**	**04**
2	What is Software Measurement? How to Calculate Cost of Software? Explain Software metrics used for S/w cost estimation. **(Jan-2013)[LJIET]**	**07**
3	Consider a project to develop a text editor. Major modules of project are: 1. Menu Panel (size 9KB) 2. Text editing window (size 5 KB) 3. Short cut keys handler (size 6 KB). Use COCOMO to determine the overall cost of the project and duration of development. **(May-2013) (Nov-2013)[LJIET]**	**07**
4	What are the steps in software Project Planning? What is effort estimation? **(May-2014) (May-2017) (ICT-Nov-2018)[LJIET]**	**03/07**
5	Explain Different Metrics –Size, Functional and complexity. **(May-2014) (ICT-Nov-2018) [LJIET]**	**07**
6	Write short note on COCOMO Model. **(May-2016) (May-2018)(ICT-May-2019)[LJIET]**	**07**
7	What is Software Measurement? Explain Software metrics used for software cost estimation. **(New-Oct-2016)(New-Nov-2017)[LJIET]**	**07**
8	Explain Software metrics used for software cost estimation. **(New-Nov-2017)[LJIET]**	**07**
9	Explain COCOMO model for project estimation. **(New-Apr-2018)[LJIET]**	**04**
	TOPIC:2 Scheduling and Tracking	

	Task Set for the Software Project, Selecting Software Engineering Tasks, Defining a Task Network and Scheduling, Earned Value Analysis and Error Tracking	
Sr No	**SHORT QUESTIONS**	**Marks**
1	Define Project Scheduling. **[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Explain project scheduling and tracking with suitable example. **(New-May-2016) (ICT-May-2019)[LJIET]**	**07**
2	Explain project scheduling process. Explain Gantt Chart in detail. **(New-Oct-2016)[LJIET]**	**07**
3	Explain project scheduling process. Explain Time line chart in detail. **(ICT-Nov-2017)[LJIET]**	**04**
4	Draw the Time-line chart for the Library Management System. **(New-Apr-2018)[LJIET]**	**04**
5	Explain Scheduling with Time line chart. **(ICT-Nov-2018)[LJIET]**	**03**
	CHAPTER NO - 4 : Software Requirements Specification:	
	TOPIC:1 Software Requirements Specification Requirement Gathering and Analysis, Software Requirement Specification(SRS), Formal requirements specification and verification - axiomatic and algebraic specifications	
Sr No	**SHORT QUESTIONS**	**Marks**
1	SRS is a document that is created when a details description of all aspects is required. State True/False. **(Nov-2011)[LJIET]**	**01**
2	"Consider a system where, a heat sensor detects an intrusion and alerts the security company." What kind of a requirement the system is providing ? A) Functional B) Non Functional C)Non of the above **(New-Apr-2017)[LJIET]**	**01**
3	SRS is also known as _____ testing. **(New-Apr-2017)[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Describe requirements validation. **(May-2011)(May-2017)[LJIET]**	**07**
2	List and explain work tasks for the communication activity. **(May-2011)[LJIET]**	**07**
3	List and explain requirement engineering tasks. **(May-2012) (ICT-Dec-2015)(New-Apr-2018)[LJIET]**	**07**
4	Explain Feasibility Study with the example of ATM Machine in Banking System. **(Jan-2013)[LJIET]**	**03/04**
5	How to Collect requirement? Explain different methods to Collect requirement. What is its importance in Software Engineering? **(Jan-2013)[LJIET]**	**07**
6	Explain Functional Requirement and Non Functional Requirement with example of Hospital Management System. **(Jan-2013)[LJIET]**	**07**
7	Explain Functional Requirement and Non Functional Requirement with example of Mobile Device. **(Jan-2013)[LJIET]**	**07**
8	What is SRS? Why SRS is known as black-box specification of the system? What are major issues addressed by SRS? **(May-2013)[LJIET]**	**07**
9	Explain Requirement engineering process. **(May-2014) (Dec-2015) (May-2017)[LJIET]**	**07**
10	Explain Feasibility Study of College Management System. **(May-2014)[LJIET]**	**07**
11	Explain Feasibility Study of Hospital Management System. **(May-2014)[LJIET]**	**07**
12	Explain Functional and non functional requirement. **(May-2014)[LJIET]**	**07**
13	Describe process of requirement engineering in detail. **(Nov-2014)[LJIET]**	**07**
14	Define: Feasibility Study. **(May-2015) (Dec-2015)[LJIET]**	**03/04**

15	Explain Requirement Analysis with example. **(May-2015)[LJIET]**	**07**
16	Explain Functional and Non Functional Requirement for Hotel Management System. **(May-2015)[LJIET] OR** Write functional and non-functional requirements of Hotel. **(New-Apr-2018)[LJIET]**	**04/07**
17	Prepare an SRS and Use Case diagram (From Ch-5) for a simple Library Management System. **(ICT-Dec-2015)[LJIET]**	**07**
18	Explain formal requirements and algebraic specifications. **(ICT-Dec-2015) (ICT-May-2019)[LJIET]**	**07**
19	Explain Functional and Non Functional Requirement for ATM in Banking System. **(Dec-2015)[LJIET]**	**07**
20	What is Software Requirement Specification (SRS)? Why is it important? List the characteristic of a good quality SRS? What contents can we include in it? **(May-2016) (ICT-Nov-2017)[LJIET]**	**07**
21	Define Requirements Engineering. List and explain Requirements Engineering Tasks. **(May-2016)[LJIET]**	**07**
22	What is Requirement Engineering? List the Functional and Non Functional requirement for Library Management system. **(New-May-2016)[LJIET]**	**07**
23	Explain every stages of Requirement Engineering. **(Oct-2016)[LJIET]**	**07**
24	Define functional and non-functional requirements and prepare SRS document for Library Management Software (LMS). **(Oct-2016)[LJIET]**	**07**
25	Write a short note on Requirement Engineering. **(New-Oct-2016)(New-Nov-2017)[LJIET]**	**07**
26	Enlist characteristic of SRS.Write a SRS for college management system. **(New-Apr-2017)[LJIET]**	**07**
27	Enlist characteristic of SRS.Write a SRS for Hospital management system. **(New-Nov-2017)[LJIET]**	**07**
28	Explain Functional Requirement and Non Functional Requirement with example of GTU Design Engineering Project Web Portal System that you are using for your Project registration. **(ICT-Nov-2017)[LJIET]**	**07**
29	List the characteristics of a good quality SRS. **(May-2018)[LJIET]**	**03/04**
30	Explain Functional Requirement and Non Functional Requirement with example of Online Examination System. **(ICT-May-2019)[LJIET]**	**07**
	CHAPTER NO - 5 : Analysis Modeling, Software Design Concepts and Principles: :	
	TOPIC:1 Analysis Modeling Elements of the Analysis Model, Data Modeling, Functional Modeling and Information Flow, Behavioral Modeling and Structured Analysis	
Sr No	**SHORT QUESTIONS**	**Marks**
1	What is data object in data modeling? **(ICT-Nov-2016)[LJIET]**	**01**
2	The database design activity deals with the design of _____ & _____. **(May-2017)[LJIET]**	**02**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Explain the difference between DFD and ER diagram with symbols and example. **(Nov-2011)[LJIET]**	**07**
	TOPIC:2 Software Design Software Design and Software Engineering, The Design Process, Design Principles, Design Concepts, Modular Design, Design Heuristics for Effective Modularity, The	

	Design Model ,Design Documentation, Function oriented v/s object-oriented design, Object Modeling using UML, Software Architecture and Data Design, Architectural Styles, Analyzing Alternative Architectural Designs, Mapping Requirements into a Software Architecture	
Sr No	**SHORT QUESTIONS**	**Marks**
1	Design should be traceable to the requirement model. State True/False **(Nov-2011) (May-2013)[LJIET]** **Ans: True**	**01**
2	Context diagram represents system as a whole. State True/False. **(May-2013) (ICT-Nov-2016)[LJIET]** **Ans: True**	**01**
3	For software architecture, there can be many separate software designs. State True/False. **(May-2013)[LJIET]**	**01**
4	Most of the technical effort is consumed in design phase of software development. State True/False. **(May-2013)[LJIET]**	**01**
5	What is data dictionary? **(ICT-Nov-2016)[LJIET]**	**01**
6	Highest level DFD is referred as _____. **(May-2017)[LJIET]**	**01**
7	What DFD notation is represented by the Rectangle? A) Data flow B) Data Store C) Process D) None of the mentioned **(New-Apr-2017)[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Compare the relative advantages of function oriented and object oriented approaches to software design. **(Nov-2011) (ICT-Dec-2015) (May-2018) (ICT-May-2019)[LJIET]**	**03/04**
2	Develop a complete use cases for the system which is known to you. **(May-2011)[LJIET]**	**07**
3	Using appropriate example explain control flow mode. **(May-2011) (Nov-2013)[LJIET]**	**07**
4	Using appropriate example explain data dictionary. **(May-2011)[LJIET]**	**07**
5	Explain the difference between coupling and cohesion. **(Nov-2011) (May-2018)[LJIET]**	**04**
6	Explain data dictionary in brief and where it is used. **(Nov-2011)[LJIET]**	**04**
7	Draw the Data Flow Diagram with different levels for withdraw and deposit of money in a bank. **(May-2012)[LJIET]**	**07**
8	What is Object Oriented Design of a system? Create a class diagram showing all possible relationships between classes of a system. **(May-2012) (May-2017)[LJIET]**	**07**
9	Compare: Coupling and Cohesion. Explain Different types of Coupling and its effect on software modules. **(Jan-2013)(ICT-Nov-2016)[LJIET]**	**07**
10	Define module coupling and cohesion. Explain different types of coupling and cohesion. **(May-2013) (Nov-2013) (May-2017)[LJIET] OR** Define module coupling and cohesion. Explain different types of cohesion. **(ICT-May-2019)[LJIET]**	**04**
11	What is the difference between software architecture and software design? Explain any two architectural styles of software. **(Nov-2013)[LJIET]**	**07**
12	What is Data design, architectural design and procedural Design? **(May-2014)[LJIET]**	**07**
13	Draw database design model and discuss Architectural design and Interface design. **(Nov-2014)[LJIET]**	**07**
14	Explain Different Symbols of E-R Diagrams. Draw E-R diagram for Library Management System. **(May-2015)[LJIET]**	**07**
15	What is Relationship ? Explain Cardinality and Modality with Examples. **(May-2015)[LJIET]**	**07**
16	Compare Procedural Design with Object Oriented Design. **(May-2015) (Dec-2015)[LJIET]**	**07**

17	Explain Cohesion and Coupling for Software Design. **(ICT-Dec-2015) (ICT-Nov-2018)[LJIET]**	**07/04**
18	Explain cardinality and modality with Examples. **(Dec-2015)[LJIET]**	**07**
19	Explain the role of data dictionary in analysis and design. **(Dec-2015) (May-2018)[LJIET]**	**07**
20	What are the purposes of Data Flow diagrams, Entity-Relationship diagrams? Give an example diagram of each. **(May-2016)[LJIET]**	**07**
21	A supermarket needs to develop software to encourage regular customers. For this, the customer needs to supply his name, address, telephone number and driving license number. A customer is assigned a unique customer number (CN) by the computer. When a customer makes a purchase, the value of the purchase is credited against his CN. At the end of each year, surprise gifts to 10 customers who have made the highest purchase is given. In addition, a 22 carat gold coin is given to every customer who has made a purchase over Rs.10,000/-. The entries are reset on the last day of the year. (i) Draw the context diagram (ii) Give data dictionary entries for i) address ii) CN iii) gold-coin-winner-list iv) totalsales. **(May-2016)[LJIET]**	**07**
22	Define Cohesion & Coupling. Explain types of both with suitable example. **(May-2016)[LJIET]**	**07**
23	A store is in the business of selling paints and hardware items. A number of reputed companies supply items to the store. New suppliers can also register with the store after providing necessary details. The customer can place the order with the shop telephonically. Or personally. In case items are not available customers are informed. The detail of every new customer is stored in the company's database for future reference. Regular customers are offered discounts. Additionally details of daily transactions are also maintained. The suppliers from time to time also come up with attractive schemes for the dealers. In case, scheme is attractive for a particular item, the store places order with the company. Details of past schemes are also maintained by the store. The details of each item i.e. item code, quantity available etc. is also maintained. i) Draw a level 1 DFD for the above requirement. **(May-2016)(ICT-May-2019)[LJIET]**	**07**
24	What is Object Oriented Design of a system? Draw the Use case diagram and Class diagram for Library Management system. **(New-May-2016)[LJIET]**	**07**
25	Explain the different design concepts. **(New-May-2016) (New-Apr-2017)[LJIET]**	**07**
26	Differentiate Structured and object oriented design. List out advantages and disadvantages of object oriented design. **(ICT-Nov-2016) (ICT-Nov-2017)[LJIET]**	**04**
27	Explain different types of relationship between use cases and Draw use case diagram for ATM Machine. **(Oct-2016)[LJIET]**	**07**
28	Define Cohesion and Coupling. Explain Different types of Cohesion (in order of the cohesion) and its effect on software modules. **(Oct-2016)[LJIET]**	**07**
29	Compare Coupling and Cohesion. Explain different types of Coupling and its effects on software modules. **(New-Oct-2016) (New-Nov-2017)[LJIET]**	**07**
30	What is architectural design? Enlist different style and patterns of architecture. **(New-Apr-2017) (New-Nov-2017)[LJIET]**	**04**
31	Define Coupling and Cohesion.What is the difference between cohesion and coupling. **(New-Apr-2017)[LJIET]**	**07**
32	State the difference between procedural Design and Object Oriented Design. **(New-Nov-2017)[LJIET]**	**03**
33	Explain Coupling and Cohesion. Explain different types of Coupling. **(ICT-Nov-2017)[LJIET]**	**04**
34	What is software architecture? Explain any two architectural styles of software. **(New-Apr-2018)[LJIET]**	**04**
	Case Study	
1	A Library lends books and magazines to member, who is registered in the system. Also it	**07**

	handles the purchase of new titles for the Library. Popular titles are bought into multiples copies. Old books and magazines are removed when they are out or date or in poor condition. A member can reserve a book or magazine that is not currently available in the library, so that when it is returned or purchased by the library, that person is notified. The library can easily create, replace and delete information about the tiles, members, loans and reservation in the system. Prepare Software Requirement Specification and Use Case Diagram. **(Nov-2011)[LJIET]**	
2	Software is to be developed for hotel management system in which information is provided for all type of activities conducted in hotel. The major users of the system are hotel staff, people who stay in the hotel and people who visit the restaurant. Information for the billing system, hotel account management, staff salary, hotel menu information, hotel room information is provided by software. Prepare Software Requirement Specification and Use Case Diagram. **(Nov-2011)[LJIET]**	**07**
3	Prepare an E-R diagram for a simple Library Management System. **(May-2012)[LJIET]**	**07**
4	Prepare a state diagram for Microwave Oven showing all states of it. **(May-2012)[LJIET]**	**07**
5	What is activity diagram and swim-lane diagram? Draw activity diagram for Billing Counter of a shopping mall. **(May-2012) (May-2017)(New-Nov-2017) (May-2018)[LJIET]**	**07**
6	Draw use case diagram of ATM Machine. **(Jan-2013)(Nov-2013)(ICT-Nov-2017)[LJIET]**	**03/04/07**
7	List five requirement of Library management System. Draw DFD lavel-0 and DFD Level-1 for Library Management System. **(Jan-2013)[LJIET]**	**07**
8	Explain functional modeling of a system. Draw data flow diagram for an ATM machine. **(Nov-2013)[LJIET]**	**07**
9	Draw E-R Diagram for university result system. **(May-2014)(May-2017)[LJIET]**	**07**
10	Draw context diagram and data flow diagram (DFD) for Airlines Reservation System. **(Nov-2014)[LJIET]**	**07**
11	Prepare an E-R diagram for a Hospital Management System. **(Nov-2014) (ICT-Nov-2016)(ICT-Nov-2017)[LJIET]**	**07/03**
12	Draw Use case diagram for Hospital Management System. **(May-2015)[LJIET]**	**07**
13	Prepare an SRS (ch-4) and Use Case diagram for a simple Library Management System. **(ICT-Dec-2015)[LJIET]**	**07**
14	Draw Use case for Library Management System. **(Dec-2015)[LJIET]**	**07**
15	Explain Different Symbols of E-R Diagrams. Draw E-R diagram for University Examination System. **(Dec-2015)[LJIET]**	**07**
16	Draw context diagram and data flow diagram (DFD) for Library Management System. **(ICT-Nov-2016)(ICT-Nov-2017)[LJIET] OR** Prepare DFD for Library Management System. **(ICT-Nov-2018)[LJIET]**	**04**
17	Draw the Data Flow Diagram for Hotel Management System. **(New-Apr-2018)[LJIET]**	**07**
18	Draw the ER diagram for the system that is known to you. **(New-Apr-2018)[LJIET]**	**04**
19	Explain DFD with symbols used and draw context diagram and DFD for Air line reservation system. **(May-2018)[LJIET]**	**07**
20	Explain E-R with symbols used and draw E-R diagram for Hospital Management System. **(May-2018)[LJIET]**	**07**
21	Prepare ER diagram for Payroll Management System. **(ICT-Nov-2018)[LJIET]**	**04**
22	Prepare DFD for Employee Attendance System. **(ICT-Nov-2018)[LJIET]**	**04**
23	Prepare an E-R diagram for an Airline reservation system. **(ICT-May-2019)[LJIET]**	**03**
24	Draw use case diagram of GTU Design Engineering Project Web Portal System that you are using for your DE Project registration. **(ICT-May-2019)[LJIET]**	**03**
	CHAPTER NO - 6 : User Interface Design, Component Level	

	Design:	
	TOPIC:1 Basics of User Interface Design User Interface Design, Task Analysis and Modeling, Interface Design Activities and Implementation Tools, Design Evaluation, Structured Programming and Comparison of Design Notation	
Sr No	**SHORT QUESTIONS**	**Marks**
1	Define User Interface. **[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Explain how do we design interfaces that allow the user to maintain control? **(Nov-2011)[LJIET]**	**07**
2	Explain the significance of User Interface (UI) in a system. Also explain the design model for UI. **(May-2012)[LJIET]**	**07**
3	What is the importance of User Interface? Explain User Interface Design Rules with examples. **(Jan-2013)[LJIET]**	**07**
4	Explain in detail the design issues while designing User Interface. **(May-2013) (May-2018)[LJIET]**	**07**
5	Explain User Interface Design Concepts with example. **(May-2014)(May-2017)[LJIET]**	**07**
6	What is User Interface (UI)? Explain the design model for UI. **(Nov-2014)[LJIET]**	**07**
7	Explain Design Rules for User Interface(UI) with example of internal UI and external UI. **(May-2015)[LJIET]**	**07**
8	Explain the significance of User Interface (UI) in a system. Also explain the design model for UI. **(ICT-Dec-2015)[LJIET]**	**07**
9	Explain Design Rules for User Interface(UI). **(Dec-2015)[LJIET]**	**07**
10	What is User Interface Design? Explain Golden Rules of it. **(May-2016)[LJIET]**	**07**
11	What is the importance of User Interface? Explain User Interface design rules. **(New-May-2016)[LJIET]**	**07**
12	What is the importance of User Interface? Explain Concept of UI. **(ICT-Nov-2016)[LJIET] OR** What is Importance of User Interface? Explain Concept of UI. **(ICT-Nov-2018)[LJIET]**	**07**
13	Explain three golden rules for UI design using example. **(Oct-2016)[LJIET]**	**07**
14	What is User Interface? Explain the design rules for UI. **(New-Oct-2016)[LJIET]**	**07**
15	Describe golden rules of User Interface Design. **(New-Apr-2017)(New-Nov-2017)(ICT-Nov-2017) (ICT-May-2019)[LJIET]**	**03/07**
16	Explain user interface design issues. **(New-Apr-2018)[LJIET]**	**03**
	CHAPTER NO - 7 : Risk Analysis & Management:	
	TOPIC:1 Risk Analysis & Management Reactive versus Proactive Risk Strategies, Software Risks (Risk Identification, Risk Projection, Risk Refinement, Risk Mitigation), Risks Monitoring and Management	
Sr No	**SHORT QUESTIONS**	**Marks**
1	What is the difference between uncertainty and loss? **(ICT-Nov-2016)[LJIET]**	**01**
2	What is the predictable risk? **(ICT-Nov-2016)[LJIET]**	**01**
3	Which one is not a risk management activity? A) Risk identification B) Risk generation C) Risk Monitoring D) Risk Mitigation **(New-Apr-2017)[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**

1	Describe the difference between risk components and risk drivers. **(May-2011) (ICT-Dec-2015)(ICT-Nov-2018) (ICT-May-2019)[LJIET]**	**07/04**
2	What do you mean by risk? What is software risk? Explain all type of Software risk. **(Nov-2011)[LJIET]**	**07**
3	What is Risk Management? Explain RMMM plan. **(Jan-2013) (ICT-Nov-2016) (New-Oct-2016)(New-Nov-2017)(ICT-Nov-2017)(ICT-Nov-2018)[LJIET]**	**07**
4	Write short note on : Risk Management. **(May-2013) (Nov-2013)[LJIET]**	**07**
5	Write and explain briefly possible reasons for project failure. **(Nov-2014)(May-2017) (May-2018)[LJIET]**	**07**
6	Explain Risk Management, Monitoring and Mitigation. **(May-2015) (Dec-2015) (May-2017)(ICT-May-2019)[LJIET]**	**07**
7	What is Risk? Explain various categories of it. Also mention strategies of Risk. **(May-2016)[LJIET]**	**07**
8	Explain Risk Management. **(New-May-2016)[LJIET]**	**07**
9	Explain Risk Mitigation, Monitoring and Management Plan (RMMM). **(Oct-2016)[LJIET]**	**07**
10	Explain RMMM. **(New-Apr-2017)[LJIET]**	**04**
11	Explain type of Software risk. **(ICT-Nov-2017)[LJIET]**	**03**
12	Enlist and discuss the types of Risks. **(New-Apr-2018)[LJIET]**	**03**
13	Write a Short note on Risk Management. **(May-2018)[LJIET]**	**07**
14	Differentiate Reactive Vs Proactive Risks.**(ICT-Nov-2018)[LJIET]**	**03**
	CHAPTER NO - 8 : Coding, Software Testing Techniques & Software Testing Strategies:	
	TOPIC:1 Basics of Software Testing Software Testing Fundamentals and Test Case Design, White-Box Testing and Black-Box Testing, ISO/IEC/IEEE Software Testing standards, Testing for Specialized Environments	
Sr No	**SHORT QUESTIONS**	**Marks**
1	Black Box testing focuses on the program control structure. State True/False. **(May-2013)[LJIET]** **Ans: False** (White box testing focuses on the program control structure)	**01**
2	Define Black box testing. **[LJIET]**	**01**
3	Define White box testing. **[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Describe coding standards. **(May-2011)(Oct-2016)[LJIET] OR** Explain various coding standard. **(New-Apr-2018)[LJIET]**	**07**
2	Explain white box and black box testing. Discuss all the testing strategies that are available. **(Nov-2011) (ICT-Dec-2015)[LJIET]**	**07**
3	What is Software testing? What is the role of software tester? Compare: Black box testing and White Box testing. **(Jan-2013)[LJIET] OR** Compare: Black Box Testing and White Box Testing.**(ICT-Nov-2017)[LJIET]**	**07/03**
4	Explain Black box testing and White box testing. Explain any one technique to carry out each testing. **(May-2013)[LJIET]**	**07**
5	What is Black box testing? Explain any one technique to carry out black box testing. **(Nov-2013)[LJIET]**	**07**
6	What is Software Reliability? Compare Black Box testing and White Box testing in	**07**

	software product. **(Nov-2014)[LJIET]**	
7	Explain Black box testing and White Box Testing. **(May-2015)(Dec-2015)[LJIET]**	**07**
8	Define Testing. What is the need of it? Explain various levels of software testing. **(May-2016) (May-2018)[LJIET]**	**07**
9	Differentiate Black Box and White Box Testing. **(May-2016)[LJIET]**	**07**
10	Explain the various coding standard. **(New-May-2016)[LJIET]**	**07**
11	Differentiate Black box testing and White box testing. Explain any one technique to carry out each testing. **(ICT-Nov-2016)[LJIET]**	**07**
12	List out Testing Attributes and explain any two in detail. **(ICT-Nov-2016)[LJIET]**	**03**
13	What is Software Testability? List out and explain characteristics of s/w testability. **(ICT-Nov-2016)[LJIET]**	**07**
14	Explain White Box and Black Box testing with all their testing techniques. **(Oct-2016)[LJIET]**	**07**
15	What is Software Testing? What is the role of a Software Tester? Compare: Black Box Testing and White Box Testing. **(New-Oct-2016)[LJIET]**	**07**
16	Explain White Box Testing With an Example. **(New-Nov-2017)[LJIET]**	**07**
	TOPIC:2 Types of Testing A Strategic Approach to Software Testing and Issues, Unit Testing, Integration and Validation Testing, System Testing, Software Documentation and Debugging Techniques	
Sr No	**SHORT QUESTIONS**	**Marks**
1	Top down integration testing is a decrement approach for the construction of the software architecture. State True/False **(Nov-2011)[LJIET]** **Ans : False** (Top down integration testing is a incremental approach)	**01**
2	What is the difference between Verification and Validation? **(ICT-Nov-2016)[LJIET]**	**01**
3	What is unit testing? **(ICT-Nov-2016)[LJIET]**	**01**
4	What is the use of debugging? **(ICT-Nov-2016)[LJIET]**	**01**
5	What is Security testing? **(ICT-Nov-2016)[LJIET]**	**01**
6	Alpha and Beta Testing are forms of _____ testing. **(New-Apr-2017)[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Develop a complete test strategy for the system which is known to you. **(May-2011)[LJIET]**	**07**
2	Using example explain the basic path testing method. **(May-2011)[LJIET]**	**07**
3	List set of guidelines for BVA ? Also Explain merits and demerits of BVA. **(May-2011)[LJIET]**	**07**
4	Differentiate alpha testing and beta testing. **(Nov-2011)[LJIET]**	**03**
5	Explain software testing strategy for conventional software architecture. Draw the spiral diagram showing testing strategies with phases of software development. **(May-2012)[LJIET]**	**07**
6	How unit testing strategy works on a software module? What errors are commonly found during unit testing? **(May-2012)[LJIET]**	**07**
7	Explain : Unit testing , cyclomatic complexity(in Ch-9 also) and Load testing. **(Jan-2013)[LJIET]**	**07**
8	What are different levels of testing and the goals of the different levels? **(May-2013) (Nov-2013)[LJIET]**	**07**
9	Explain Different Testing Techniques. **(May-2014)[LJIET]**	**07**
10	What is testing? What is debugging? Draw the spiral diagram showing testing strategies with phases of software development. **(Nov-2014)[LJIET]**	**07**
11	Explain Unit Testing and Integration Testing in detail. **(ICT-Dec-2015) (ICT-Nov-**	**03/07**

	2017)[LJIET]	
12	What do you mean by debugging? Explain various debugging approaches. **(ICT-Dec-2015) (ICT-Nov-2018)[LJIET]**	**07**
13	Explain Unit Testing and System Testing. **(Dec-2015)[LJIET]**	**07**
14	What are the different levels of testing? Explain any one with suitable example. **(New-May-2016)[LJIET]**	**07**
15	Explain Alpha and Beta Testing in detail. **(ICT-Nov-2016)(ICT-Nov-2017)(ICT-Nov-2018) (ICT-May-2019)[LJIET]**	**03**
16	What is BVA? List out guidelines of BVA. **(ICT-Nov-2016)(ICT-Nov-2017) (ICT-May-2019)[LJIET]**	**04**
17	What is System testing and Recovery Testing? **(ICT-Nov-2016) (ICT-Nov-2018)[LJIET]**	**03**
18	Explain different levels of testing and the goals of the different levels. **(Oct-2016)[LJIET]**	**07**
19	List set of guidelines for BVA.Also Explain merits and demerits of BVA. **(New-Apr-2017) (New-Nov-2017)[LJIET]**	**07**

20	Determine cyclomatic complexity and basis set of linearly independent paths for the following code:
	public static boolean is_prime(int n)
	{
	boolean prime=TRUE;
	int i=2;
	while (i<n)
	{
	if(n%i ==0)
	{
	prime=false;
	}
	i++;
	}
	return (prime); **(ICT-Dec-2015)[LJIET]**
		07

21	Consider the program given below
	void main()
	{
	int i,j,k;
	readln (i,j,k);
	if((i < j) || (i > k))
	{
	writeln("then part");
	if (j < k)
	writeln ("j less then k");
	else writeln (" j not less then k");
	}
	else writeln("else Part");
	}
	(i) Draw the flow graph.
	(ii) Determine the cyclomatic complexity.
	(iii) Arrive at all the independent paths. **(New-Apr-2017) (ICT-May-2019)[LJIET]**
		07

22	Consider the program given below
	int computeGCD(int x,int y)
	{
	while (x != y){
	if (x>y) then
		07

	x=x-y;
	else y=y-x;
	}
	return x;
	}
	(i) Draw the flow graph.
	(ii) Determine the cyclomatic complexity.
	(iii) Arrive at all the independent paths. **(ICT-Nov-2017)[LJIET]**	

23	Explain Integration testing. **(New-Apr-2018)[LJIET]**	**07**
24	Compare and contrast alpha and beta testing. **(New-Apr-2018)[LJIET]**	**03**
25	Explain the process of code review. **(New-Apr-2018)[LJIET]**	**04**
26	What are the different levels of testing? Briefly discuss the goal of each level. **(New-Apr-2018)[LJIET]**	**03**
27	Explain Unit Testing in Detail. **(ICT-May-2019)[LJIET]**	**04**
28	Explain level Of Testing in detail. **(ICT-May-2019)[LJIET]**	**03**
	CHAPTER NO - 9 : Software Quality Assurance and Configuration Management	
	TOPIC:1 Basics of Software Quality Quality Concepts and Software Quality Assurance, Quality Planning and Control, Software Reviews (Formal Technical Reviews), Software Reliability and Fault Tolerance, The ISO 9000 Quality Standards	
Sr No	**SHORT QUESTIONS**	**Marks**
1	What is the full form of MTBF **(Nov-2011)[LJIET]** **a) Meantime – between-failure** b)Max time between failure c) All of the above d)None of these **Ans: a) Meantime – between-failure**	**01**
2	Full form of MTBF is – Mean Time Between Failure. State True/False.**(May-2013)[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	List the SQA related activities. **(Nov-2011)(May-2018)[LJIET]**	**03/04**
2	List set of guidelines for formal technical reviews. **(May-2011)[LJIET]**	**07**
3	Explain importance of SQA. **(May-2011) (Nov-2013)[LJIET]**	**07**
4	What do you mean by Quality Assurance? Explain various factors that affect software quality. **(Nov-2011)[LJIET]**	**07**
5	Explain five-level of SEI-CMM. **(Nov-2011) (ICT-Dec-2015)(ICT-Nov-2017)[LJIET]** **OR** Explain five levels of SEI-CMM. **(May-2018)[LJIET]**	**04/07**
6	Define Quality for software. List and explain SQA activities. **(May-2012) (New-Apr-2018)[LJIET]**	**07**
7	What is Cyclomatic Complexity? Define steps to find cyclomatic complexity using flow graph. **(May-2012) (ICT-Nov-2016) (May-2017)(New-Nov-2017) (May-2018)[LJIET]**	**07/03**
8	Explain Software Quality Assurance and its importance. Also Explain Different CMM Level. **(Jan-2013)[LJIET]**	**07**
9	What is Software Reliability? What is the role of software Maintenance in Software Product? **(Jan-2013)[LJIET]**	**07**
10	What is Software Quality Assurance? Explain various factors that affect Software Quality. **(May-2013) (ICT-Nov-2016) (May-2017) (ICT-Nov-2017) (ICT-Nov-2018)[LJIET]**	**07**
11	Explain Software Process Improvement. Explain various elements of SPI framework and	**07**

	maturity model. **(May-2013)[LJIET]**	
12	Explain Different Quality standards. **(May-2014)[LJIET]**	**07**
13	Explain Software Quality Assurance Techniques. **(May-2014)[LJIET]**	**07**
14	Explain : Reliability , Cyclomatic Complexity. **(May-2014)[LJIET]**	**07**
15	Define Software Quality Assurance (SQA) and explain SQA activities. **(Nov-2014)[LJIET]**	**07**
16	Define: CMM Level. **(May-2015) (Dec-2015)[LJIET]**	**03/04**
17	Explain : QFD , Reliability. **(May-2015)[LJIET]**	**07**
18	Explain : Quality Control and standards like ISO 9000 and 9001. **(May-2015)[LJIET]**	**07**
19	Define: QFD. **(Dec-2015)[LJIET]**	**03/04**
20	Compare: Quality Control Vs. Quality Assurance. **(Dec-2015) (New-Apr-2017)[LJIET]**	**07/04**
21	How do we define Software Quality & Software Reliability? Describe briefly the terms: a) Quality of Design b) Quality of Conformance c) MTBF **(May-2016)[LJIET]**	**07**
22	What is the importance of SQA? Explain the SQA activities. **(New-May-2016)[LJIET]**	**07**
23	Explain Software Process Improvement with various elements of SPI framework. **(New-May-2016)[LJIET]**	**07**
24	Define Software Reliability. Explain various measures of Software Reliability and Availability. **(Oct-2016)[LJIET]**	**07**
25	Explain McCall's Software Quality factors. **(Oct-2016)[LJIET]**	**07**
26	Explain the importance of Software Quality Assurance. Also explain different CMM levels. **(New-Oct-2016)[LJIET]**	**07**
27	Explain Formal Technical Review. **(New-Apr-2017)[LJIET]**	**03**
28	Enlist and explain different types of maintenance. **(New-Apr-2017)[LJIET]**	**03**
29	List quality standards. Explain any one. **(New-Apr-2017) (New-Nov-2017)[LJIET]**	**03/04**
30	Compare quality control with quality assurance. **(New-Nov-2017)[LJIET]**	**03**
31	Write a note on Software Quality Assurance. **(ICT-May-2019)[LJIET]**	**03**
	TOPIC:2 Software Configuration Management The SCM Process, Identification of Objects in the Software Configuration, Six Sigma, Version Control and Change Control	
Sr No	**SHORT QUESTIONS**	**Marks**
1	What combines procedures and tools to manage different versions of configuration objects that are created during the software process? **(New-Apr-2017)[LJIET]**	**01**
2	Define SCM. **[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	What do you mean by software configuration? What is meant by software configuration management? **(Nov-2011)[LJIET]**	**07**
2	Explain "How to manage the different versions that get created and how to maintain code quality under changing conditions." **(May-2013)[LJIET]**	**07**
3	Explain Version Management and code quality management under changing conditions. **(Nov-2013)[LJIET]**	**07**
4	Explain software version control and change control. **(ICT-Dec-2015)[LJIET] OR** Explain Version and Change Control Management. **(New-Apr-2018)[LJIET]**	**07/04**
5	Explain Software Configuration Management. **(New-May-2016)[LJIET]**	**07**
6	Write a short note on Software Configuration Management. **(New-Oct-2016)[LJIET]**	**07**
7	Explain SCM process in details. **(New-Apr-2017)[LJIET]**	**07**
8	Explain Software maintenance. **(New-Apr-2018)[LJIET]**	**07**
	CHAPTER NO - 10 : Emerging and advanced topics in	

	Software Engineering:	
	TOPIC:1 Advance Topics in Software Engineering Security Engineering, Agile Methods, Client Server Software Engineering, Aspect Oriented Software Development, Software Engineering Aspects of Programming Languages,	
Sr No	**SHORT QUESTIONS**	**Marks**
1	Agility has become today's buzzword when describing a modern software process. State True/False **(Nov-2011)[LJIET]**	**01**
2	Agility is defined as the ability of a project team to respond rapidly to a change.(TRUE/FALSE) **(New-Apr-2017)[LJIET]**	**01**
3	What is Scrum? **[LJIET]**	**01**
4	List out various Development activities in Scrum? **[LJIET]**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	List the different Agile process model and Explain any one with suitable example. **(New-May-2016)[LJIET]**	**07**
2	Explain Agile Development in detail. **(New-Oct-2016)(New-Nov-2017)[LJIET]**	**07**
3	Explain Scrum with merits and demerits. **(New-Apr-2017)[LJIET] OR** Explain the merits and demerits of SCRUM. **(New-Nov-2017)[LJIET]**	**04/07**
4	Explain Client/Server Software Engineering. **(New-Apr-2017) (New-Apr-2018)[LJIET]**	**07**
5	Discuss the concept of Agility. **(New-Apr-2018)[LJIET]**	**03**
	TOPIC: 2 Reverse Engineering, Re-engineering, Web Engineering, CASE. Reverse Engineering, Re-engineering, Web Engineering, CASE.	
Sr No	**SHORT QUESTIONS**	**Marks**
1	CASE tools are used for _____. **(May-2017)[LJIET]**	**01**
2	_____ tools extract data, architectural, and procedural design information from an existing program. **(New-Apr-2017)[LJIET]** **Ans : Reverse Engineering**	**01**
Sr No	**DESCRIPTIVE QUESTIONS**	**Marks**
1	Describe integrated CASE Environment. **(May-2011)(May-2016)[LJIET]**	**07**
2	What are CASE tools? Explain its importance in SE. **(Jan-2013)[LJIET]**	**07**
3	Write short note on: Reverse Engineering. **(May-2013) (May-2016) (ICT-Nov-2017)[LJIET]**	**04/07**
4	Write short note on: Integrated CASE Environment. **(Nov-2013)[LJIET]**	**07**
5	Explain CASE and building blocks of CASE. **(May-2014) (May-2017)[LJIET]**	**07**
6	What does CASE stands for? Explain all the CASE components. **(Nov-2014)[LJIET]**	**07**
7	Explain CASE tools and its use in Software Engineering. **(May-2015) (New-Oct-2016) (New-Nov-2017)[LJIET]**	**03/07**
8	Explain Business Process Re-engineering. **(ICT-Dec-2015)[LJIET]**	**07**
9	Write short note on ReEngineering. **(May-2016) (New-Nov-2017) (May-2018) (ICT-May-2019)[LJIET]**	**07/03/04**
10	Write a short note on: CASE. **(New-May-2016)[LJIET]**	**07**
11	Explain Software Re-Engineering process model. **(New-May-2016)[LJIET]**	**07**
12	What are CASE tools? Explain its importance in SE. **(Oct-2016)[LJIET]**	**07**
13	Write a short note on Reverse Engineering. **(New-Oct-2016) (New-Nov-2017) (May-**	**04/07**

	2018)[LJIET]	
14	Difference between reverse engineering and forward engineering. **(New-Apr-2017)[LJIET]**	**04**
15	Describe CASE building blocks. **(New-Apr-2017)[LJIET]**	**04**
16	Explain the following term in brief 1) Re-Engineering 2) Reverse Engineering **(New-Apr-2018)[LJIET]**	**04**
	Extra (Not in Syllabus)	
1	Explain Software as a Service (SaaS). **(New-May-2016)[LJIET]** Explain Software as a Service. **(New-Apr-2018)[LJIET]**	**03/07**
2	Write a short note on Component-Based Software Engineering. **(New-Oct-2016)[LJIET]**	**07**
3	Explain Software as a Service (SaaS). Give its applications. **(New-Oct-2016)(New-Nov-2017)[LJIET]**	**07**
4	Which web app attribute is defined by the statement:"A large number of users may access the WebApp at one time"? **(New-Apr-2017)[LJIET]**	**01**
5	SaaS means _____. **(New-Apr-2017)[LJIET]**	**01**
6	What is mobile testing? Mention the challenges in mobile testing. **(New-Apr-2017)[LJIET]**	**04**
7	The WebE process model. **(New-Apr-2017)[LJIET]**	**03**
8	Adaptive Software Development Process Model. **(New-Apr-2018)[LJIET]**	**07**
9	Explain Web Engineering. **(New-Apr-2018)[LJIET]**	**07**