Class: TY B. Tech
Branch: Computer   **Semester : V**
Full name of the course: Software Engineering   **Course Code: 2UCC501**
Duration: 1hr.15 min (attempting questions) +15 min (uploading)   **Max. Marks: 30**

Q. No	Questions	Marks

Q1.1	What is NOT a part of software?
	    A. Problem definition.
	    B. B. User's manual
	    C. Test Results.
	    D. Project Management Plan
		1 MARK

Q1.2	Which is NOT included in 4 Ps related to Software Engineering?
	    A. People
	    B. Planning
	    C. Project
	    D. Product
		1 MARK

Q1.3	Which of the following is NOT a key process area at Process maturity level 5 (Optimized)?
	    A. Process change management
	    B. Technology change management
	    C. Software Quality Management
	    D. Defect prevention.
		1 MARK

Q1.4	Which is NOT an early Adjustment cost factor used in COCOMO II?
	    A. Risk resolution
	    B. Personal Attribute
	    C. Team support facilities
	    D. Previous experience
		1 MARK

Q1.5	Which of the following is a part of static analysis?
	    A. Sequence Diagram
	    B. Class Diagram
	    C. Collaboration Diagram
	    D. State Chart diagram
		1 MARK

Q1.6	Number of external inputs (EIs) data for function point analysis comes from?
	    A. within application's boundary
	    B. outside the application's boundary
	    C. generated by the application
	    D. to be assumed by the application
		1 MARK

Q1.7	Cost Variance (CV) is which of the following equations?
	    A. CV = BCWP - BCWS
	    B. CV = BCWP - ACWP
	    C. CV = SV / BCWS
	    D. CV = CV+1
		1 MARK

Q1.8	Functional requirements are?
	    A. Independent of implementation
	    B. Dependent on implementation
	    C. Focus on implementation details
	    D. Focus on weather details
		1 MARK

Q1.9	Consider a smoke detector in the company which detects smoke and alerts the security staff in a company about the fire breakout. What kind of requirements is this?
	    A. Non Functional Requirement
	    B. Functional Requirement
	    C. Known Requirement
	    D. Unknown Requirement
		1 MARK

Q1.10	Which of these software engineering activities are not a part of software processes?
	    A. Software dependence
	    B. Software development
	    C. Software validation
	    D. Software specification
		1 MARK

Q.2	Consider following situation: A person is interested in Changing PIN for his ATM card, He/ she inserts the ATM card, selects the registered mobile number, receives OTP on mobile and after entering the correct OTP, PIN could be changed. If the either of the entered data (registered mobile number or OTP received) is wrong maximum 3 attempts could be given, else the card is to be blocked. **Draw a sequence/ an activity diagram for the same. WRITE your assumptions clearly, if assumptions are not written NO MARKS WILL BE AWARDED.**	05 MARK
Q3	**Calculate of FP (state assumptions clearly if any)** Given the following values, compute function point when all complexity adjustment factor (CAF) are average and weighting factors are: | User Input = 50	Average
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User Output = 40	Simple
User Inquiries = 35	Complex
User Files = 6	Complex
External Interface = 4	Simple		05 MARK

Q4	With an example explain how modularity can be used to improve the design of a software system. **OR**	05 MARK

Q4	Define following coupling types:
	   a) Content Coupling
	   b) Stamp Coupling
	   c) Routine Call Coupling
	   d) Data Coupling
	   e) Inclusion Coupling.
		05 MARK

Q5	Explain the non-functional requirements stated below strictly w.r.t **Online Electricity Bill Payment Portal**.
	   a) Usability
	   b) Response Time
	   c) Reliability
	   d) Adaptability
	   e) Security
	OR
		05 MARK

Q5	Draw state chart diagram for bank account object	05 MARK