Total No. of Questions: 6 *Total No. of Printed Pages:3*

Enrollment No.....

Faculty of Engineering

End Sem Examination May-2024

CB3CO24 Software Engineering

Programme: B.Tech. Branch/Specialisation: CSBS

Duration: 3 Hrs. **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

Q.1 i. What is a functional requirement? **1**

(a) Specifies the tasks the program must complete
(b) Specifies the tasks the program should not complete
(c) Specifies the tasks the program must not work
(d) All of these

ii. The user system requirements are the parts of which document? **1**

(a) SDD (b) SRS (c) DDD (d) SRD

iii. Software is defined as _____. **1**

(a) Set of programs, documentation & configuration of data
(b) Set of programs
(c) Documentation and configuration of data
(d) None of these

iv. Which of the following is not a diagram studied in requirement analysis? **1**

(a) Use cases (b) Entity relationship diagram
(c) State transition diagram (d) Activity diagram

v. The requirements that result from requirements analysis are typically expressed from one of three perspectives or views. What is that perspective or view? **1**

(a) Developer (b) User (c) Non-functional (d) Physical

vi. _____ is a measure of the degree of interdependence between modules. **1**

(a) Cohesion (b) Coupling
(c) Both (a) and (b) (d) None of these

vii. Actual programming of software code is done during the _____ step in the SDLC. **1**
(a) Maintenance and evaluation
(b) Design
(c) Analysis
(d) Development and documentation

viii. _____ is the process of translating a task into a series of commands that a computer will use to perform that task. **1**
(a) Project design (b) Installation
(c) Systems analysis (d) Programming

ix. Which of the following is the task of project indicators? **1**
(a) Help in assessment of status of ongoing project
(b) Track potential risk
(c) Help in assessment of status of ongoing project & track potential risk
(d) None of these

x. Which of the following does not affect the software quality and organizational performance? **1**
(a) Market (b) Product (c) Technology (d) People

Q.2 i. Explain any two software myth. **2**
ii. Explain spiral model & write down its advantage and disadvantages. **8**
OR iii. Explain rational unifies process in detail of each phase. **8**

Q.3 i. Explain software stakeholders. **2**
ii. Explain class-based modelling and its description with the help of any software project example in detail. **8**
OR iii. Explain data flow diagram and its description with the help of any software project example in detail. **8**

Q.4 i. Describe abstraction, architecture, modularity. **3**
ii. Explain component design with example. **7**
OR iii. Explain user interface design, configuration management in detail with example. **7**

Q.5 i. What is software quality? How can we assure the quality of software? **4**
ii. Explain in detail risk assessment & risk mitigation. **6**
OR iii. Define software testing, also explain its types. **6**

Q.6 Attempt any two:
i. Explain COCOMO models with example. **5**
ii. Write differences between process metrics and product metrics. **5**
iii. What is software project estimations? How can we calculate it? Explain with example. **5**

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Marking Scheme

CB3CO24 (T) Software Engineering

Q.1	i)	A		**1**
	ii)	B		**1**
	iii)	A		**1**
	iv)	D		**1**
	v)	D		**1**
	vi)	B		**1**
	vii)	D		**1**
	viii)	D		**1**
	ix)	C		**1**
	x)	A		**1**
Q.2	i.	Explain any two software myth.		**2**
		Explanation	2 Marks	
	ii.	Explain Spiral Model & write down its advantage and disadvantages?		**8**
		Explanation	5 Marks	
		advantage and disadvantages?	3 Marks	
OR	iii.	Explain Rational Unifies Process in details of each phase?		**8**
		Explanation	5 Marks	
		Phase	3 Marks	
Q.3	i.	Explain software Stakeholders.		**2**
		Explanation	2 Marks	
	ii.	Explain class-based modelling and its description with the help of any software project example in details?		**8**
		Explanation	5 Marks	
		Example	3 Marks	
OR	iii.	Explain Data Flow Diagram and its description with the help of any software project example in details?		**8**
		Explanation	5 Marks	
		Example	3 Marks	
Q.4	i.	Describe Abstraction, Architecture, Modularity?		**3**
		Each	1 mark	
	ii.	Explain component design with example.		**7**
		Explanation	4 Marks	
		Example	3 Marks	
OR	iii.	Explain User Interface Design, Configuration Management in details with Example?		**7**
		Explanation	4 Marks	
		Example	3 Marks	
Q.5	i.	What is Software Quality? How can we assure the quality of software?		**4**
		Explanation	4 Marks	
	ii.	Explain In details Risk Assessment & Risk Mitigation?		**6**
		Risk Assessment	3 Marks	
		Risk Mitigation	3 Marks	
OR	iii.	Define Software Testing, also explain its types		**6**
		Explanation	3 Marks	
		Types	3 Marks	
Q.6		Attempt any two:		
	i.	Explain COCOMO Models with example		**5**
		Explanation	3 Marks	
		Example	2 Marks	
	ii.	Write difference between Process Metrics and Product Metrics.		**5**
		Each difference	5 Marks	
	iii.	What is Software Project Estimations, how can we calculate it explain with example.		**5**
		Explanation	3 Marks	
		Example	2 Marks	

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