US05CBCA03 || SOFTWARE ENGINEERING

Question Bank || UNIT - 1

Multip	le choice Questions (1 mark e	each)
	is the collection of comp	outer programs, procedures and data.
A)	Hardware	B) Software
C)	Network	D) Engineering
Which	phase is required to understand	the problem?
A)	System Design	B) Coding
C)	Requirement Analysis	D) Testing
	is the second step of des	ign phase.
A)	Design Analysis	B) System Design
C)	Black box	D) Detailed Design
The co	oding should follow rules of	
A)	Structured Programming	B) UML
C)	Integrated Programming	D) OOP
	is the simplest and mos	t widely used software development mod
A)	Spiral	B) Prototype
C)	Iterative enhancement	D) Waterfall
	model overcomes first to	wo limitations of Waterfall model
A)	Spiral	B) Prototype
C)	Iterative enhancement	D) Waterfall
	model provides better ri	sk management and cost of each phase.
A)	Spiral	B) Prototype
C)	Iterative enhancement	D) Waterfall
Efficie	ncy and Reliability are measured	d on which dimension of Quality control.
A)	Product Transition	B) Product Usability
C)	Product Operation	D) Product Revision
	requires major e	fforts.
A)	Testing	B) Maintenance
C)	Coding	D) Design
(Ans:-	1-B; 2-C; 3-D; 4-A; 5-D; 6-B; 7-	A; 8-C; 9-A)
Short	Questions (2 marks each)	
Define	: Software, Software Engineerin	g, Software Process and Software Proje
List do	wn characteristics of software p	rocess.
Write a	a short note on requirement ana	lysis phase.
Write a	a short note on maintenance pha	ase.

5	Explain error distribution.		
6	What are the limitations of Waterfa	all model?	
7	Explain advantages of spiral mode	el.	
8	Write a short note on Product tran	sition to maintain quality.	
Q. 3	Descriptive Questions		
1	What is Software engineering? Ex	plain characteristics of software process.	5
2	Explain design, coding and testing	phase of software development.	6
3	Explain prototype model.		4
4	Explain iterative enhancement mo	odel.	4
5	Which factors are effects on qualit	ty of software?	6
6	Explain error and effort distribution	٦.	6
Q. 4	Long Question (10 marks each)		
1	Explain waterfall model.		
2	Explain phases of software develo	ppment.	
	Questio	on Bank UNIT – 2	
Q. 1	Multiple choice Questions (1 ma	ark each)	
1	An SRS establishes the basis for	agreement between the and the	
	A) User & Product	B) Client & Supplier	
	C) Product & Quality	D) Developers & Project	
2	An SRS provides a reference for _	of the final product.	
	A) Validation	B) Xerox copy	
	C) Verification	D) Quality	
3	A high quality SRS reduces the de	evelopment	
	A) Time	B) Customer requirements	
	C) Cost	D) Quality	
4		I to understand the needs, goals and	
	constraints.		
	A) Testing	B) Requirement Specification	
_	C) Design	D) Problem Analysis	
5	characterist denotes one interpretation.	ic of SRS means the entire requirement	
	A) Complete	B) Reliability	
	C) Unambiguous	D) Traceable	
6	The components of SRS are:	2, 114004510	
•	A) Function Requirement,	B) Coding, Testing	

C)	Performance requirement Effective, Complete	D)	SCM, SQAP
Partition	oning, abstraction and projection	are u	sed for
A)	Data Analysis	B)	Structuring Information
C)	SDLC	D)	DFD
	is the formal langu	ıage ι	used to specify the requirements.
A)	English	B)	UDF
C)	Structured English	D)	Expressions
Bang	metric is used to quantify the		of the project
A)	Size	B)	Time
C)	Functions	D)	Needs
The et	_		formula in single variable
A)	Effort = a * sizeb	B)	Effort = a + sizeb
C)	Effort = a * size / b	D)	Effort = a / sizeb
cocc	OMO stands for:		
A)	Construction Cost Model	B)	Constructive Cost Model
C)	Constructive Code Model	D)	Calculated Cost Model
The m	edium size projects are also kno	wn as	s projects
A)	Organic	B)	Embedded
C)	Semidetached	D)	Run away
	orm which can be filled up daily or y are known as		kly to maintain monitoring and plan
A)	UDF	B)	Time sheets
C)	Cost Schedule Milestone graph	D)	Reviews
The G	antt chart is used for		method to display activities.
A)	Earn value method	B)	Review
C)	UDF	D)	SRS
KDLO	C means	_	
A)	Kilogram Developed Line of Code	B)	Kilogram Delivered Local Code
·	Thousands Delivered Local Code	•	Thousands Delivered Line of Code
•	P) means		
	Software Quality Assurance Plan	-	System Quality Appearance Plans
C)	Software Quick Activity Plans	ט)	System Quantity Assurance Process
	is the method to ide	ntify	the Risk
A)	Risk Identification	B)	Risk Analysis
C)	Risk Assessment	D)	Risk Control

(Ans: 1-B; 2-A; 3-C; 4-D; 5-C; 6-A; 7-B; 8-C; 9-A; 10-A; 11-B; 12-C; 13-B; 14-A; 15-D; 16-A; 17-C)

Q. 2 Short Questions (2 marks each)

- **1** Justify the following.
 - "The objective of SRS is to specify what is needed from the system, not how the system will provide it."
- 2 Justify the following.
 - "Now a day a more importance is given to SRS instead of design and coding."
- **3** Justify the following..
 - "A high quality SRS is prerequisite to high quality software"
- **4** Justify the following.
 - "A high quality SRS reduces development cost"
- **5** Explain Partitioning.
- 6 Explain Projections.
- 7 Explain Design constraints as a component of SRS.
- **8** What is Structured English?
- **9** What do you mean by "Automated Cross Referencing".
- 10 List down the activities performed during project planning.
- 11 Explain software size estimation methods in short.
- 12 List down at least 8 variables of COCOMO model.
- Write a short note on Time sheets.
- Write a short note on Cost schedule Milestone Graph.
- Write a short note on Earned Value method.
- **16** Explain V & V technique for SQAP.
- 17 Explain Risk management.

Q. 3 Descriptive Questions

1	What is SRS? Explain needs of SRS.	4
2	What you mean by SRS? Explain Components of SRS.	6
3	Explain general characteristics of SRS.	4
4	Explain Requirement specification in SRS. (or Structure of SRS).	7
5	What is specification language?	4
6	Explain validation process of SRS.	6
7	What is the importance of project monitoring plans? List the various methods for monitoring a project. Write in brief about any one of them.	6
8	Explain Single variable model for cost estimation.	6
9	Explain SQAP.	5

Q. 4 Long Question (10 marks each)

- 1 What is SRS? Explain characteristics, needs and Components of SRS.
- 2 Explain COCOMO Model.

Question Bank || UNIT - 3

		Question Bank C	<u> IINL</u>	<u> </u>			
Q. 1	Multip	ele choice Questions (1 mark each)					
1	tands for						
	A)	Process Define Language	B)	Prefer Define Language			
	C)	Procedure Design Language	D)	Process Design Language			
2	In syst	em design, we do following:					
	A)	Hardware design after software design	B)	Software design after hardware design			
	C)	Parallel, Hardware and Software design	D)	No hardware design needed.			
3	Desigr	n phase includes					
	A)	Data, architectural and procedural design only	B)	Architectural, procedural and interface design only			
	C)	Data, architectural and interface design only	D)	Data, architectural, interface, procedural design			
4	Which	of the following is a tool in design phase	e?				
	A)	Abstraction	B)	Refinement			
	C)	Information Hiding	D)	All of them			
5	Which	Which one is the key term used in design of a system?					
	A)	Module	B)	Data			
	C)	Process	D)	None			
6		Which of the following is NOT a component of Object oriented software engineering?					
	A)	Process	B)	Method			
	C)	Architecture	D)	None			
7	Which	is not the level of Cohesion?					
	A)	Logical	B)	Physical			
	C)	Sequential	D)	Coincidental			
8	Structu	Structured design methodology tries to reduce					
	A)	Cost	B)	Time			
	C)	Cohesion	D)	Coupling			
9	Numbe	Number of subordinates associated with given module is known as					
	A)	Fan-out	B)	Fan-in			
	C)	Dependency	D)	Module			

Whic	ch is not factor for design specification	?		
P	Problem Specification	B)	Design Decision	
(C) Abstraction	D)	Module Specification	
	technique is used to verif	ication	of system design.	
P	A) Interview	B)	Coupling	
C	C) Functional Requirement	D)	Automated Cross checking	
In fu desi	nctional abstraction the module considgn.	dered a	s for detail	
P	A) White box	B)	Black box	
(C) Compiled box	D)	None	
Most	common method for designing algori	thm is .		
P	A) Object refinement	B)	Procedural refinement	
C	C) Step wise refinement	D)	All of them	
	is verification technique for	detail	design.	
P	Design walkthrough	B)	Critical design	
(C) Consistency checkers	D)	All of them	
	ne: Coupling and Cohesion.			
Sho	rt Questions (2 marks each)			
Defir	ne: Module and Modular System.			
Diffe	rentiate between System design and l	Detaile	d design	
Diffe	rentiate between Coupling and Cohes	ion		
Diffe	rentiate between Top-down and Botto	m-up a	approaches	
Diffe	Differentiate between Functional and Object-oriented approaches			
Explain in brief Design walkthrough.				
List t	he levels of Cohesion.			
List t	he names of verification techniques for	or Syste	em and Detailed design.	
Desc	criptive Questions			
Disc	uss the design objectives in detail with	prope	r illustrations.	6
Disc	uss the basic principles of design in de	etail.		8
Write	e a short note on Coupling.			4
Write	e a short note on Cohesion.			8
Write	e a brief note on Structured design.			7
Wha	t is design specification? Explain facto	ors of it		5

8	Write a short note on PDL.		4			
9	Write a short note on Logic/Algori	thm design.	5			
10	What is module specification?					
11	Explain functional module specification.					
12	Explain data abstraction module specification.					
13	Explain the verification technique	s for Detailed Design.	6			
Q. 4	Long Question (10 marks each)					
1	What is system design? Explain h	now coupling and cohesion used.				
2	What is detail design? Explain mo	odule specification techniques in detail.				
	Questi	on Bank UNIT – 4				
Q. 1	Multiple choice Questions (1 m	ark each)				
1	The goal of coding should not be to reduce the cost, but the goal should be to reduce cost of					
	A coding, designing	B implementation, later phases				
	C implementation, designing	D testing, maintenance				
2	In structured design methodology	the hierarchy of modules is represented by the				
	A flow chart	B PERT chart				
	C Gant chart	D structure chart				
3	Structured programming is often	called programming				
	A. goto-less	B. object oriented				
	C. procedural	D. None of these				
4	In static structure of a program the text of the program is in organization.					
	A. structured	B. linear				
	C. static D. None of these					
5	The information hiding principle in modern programming languages by					
	A. data-hiding	B. encapsulation				
	C. data-abstraction	D. inheritance				
6	The single-entry, single-exit constructs are also called					
	A. control constructs	B. iteration constructs				
	C. selection constructs D. None of these					
7	In programming style, nesting me	In programming style, nesting means				
	A. switch	B. if-then-else				
	C. nested function	D. nested for loop				
8	When type of variab	les is changed then some side effects are				

	A. static	B. dynamic				
	C. global	D. None of these				
9	Comments for a module are oft	en called for the module.				
	A. prologue	B. message				
	C. information	D. None of these				
10	The program verification metho	ds fall in which categories?				
	A. Static	B. Dynamic				
	C. Static and Dynamic	D. Structured				
11	Which static method is used for	r verify the programs?				
	A. Review	B. Automated cross checking				
	C. Code reading	D. None of these				
12	Code reading is the reverse of	which phase?				
	A. Detailed design	B. Requirement				
	C. Testing	D. Design				
13		etween output of software and the				
	output. A. actual, obtained	B. actual, correct				
	C. correct, ideal	D. None of these				
14	A failure is produced only when	A failure is produced only when there is a in the system.				
	A. error	B. bug				
	C. fault	D. problem				
15	The structural approach is som	The structural approach is sometimes called				
	A. glass-box testing	B. Graph testing				
	C. regression testing	D. Black-box testing				
	(Ans: 1-B; 2-D; 3-A; 4-B; 5-C; 6 15-A)	s-A; 7-B; 8-C; 9-A; 10-C; 11-C; 12-D; 13-B; 14-C;				
Q. 2 1	Short Questions (2 marks each Write the goal of coding.	ch)				
2	What do you mean by structure	ad programming?				
3	What do you mean by informati					
4	•	s used in structured programming?				
5	List at least 6 general rules of p	. •				
6	How the internal documentation					
7	What do you mean by code rea	·				
8	Define Error, fault, failure (any					
	- , · · , · - · · · · · · · · · · ·	,				

- **9** Write at least 2 differences between functional and structural testing.
- **10** Draw the diagram of levels of testing.

Q. 3 Descriptive Questions

1	Explain the Top-Down and Bottom-Up approach in coding.	5
2	Explain the structured programming used in coding.	5
3	Explain the concept of information hiding in structured programming.	4
4	List all the rules to write the code in coding phase and explain any three of them (Programming Style).	7
5	What do you mean by the internal coding in documentation? Explain it (internal documentation).	4
6	What is verification process in coding phase and explain Code reading method.	4
7	Define the following terms: Error, Fault and Failure.	3
8	List out the testing fundamentals, and explain any one (or all) of them.	
9	Explain the Top-Down and Bottom-Up approach in testing phase.	4
10	Differentiate between Functional testing and Structural testing.	4
11	Explain the levels of testing.	5

Q. 4 Long Question (10 marks each)

- 1 Explain coding approach and programming style.
- 2 What is testing? Explain levels of testing using diagram.