

B.TECH./EE/EVEN/6/CS(EE)606D/2020-2021

PAPER TYPE: S+RS

YEAR: 2021

SOFTWARE ENGINEERING

REGULATION:16

CS(EE)606D

TIME ALLOTTED: 3 HOURS

FULL MARKS: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable

GROUP – A

(Multiple Choice Type Questions)

1. Answer any **ten** from the following, choosing the correct alternative of each question: **10×1=10**

SL. NO.	Question	Marks	CO No.
(i)	If two module M1 and M2 share code then desired level of coupling is (a) content coupling (b) Control coupling (c) Common coupling	1	2
(ii)	(d) Data coupling ERP stands for a) Enterprise Research Planning (b) Enterprise Resource Planning c) Enterprise Resource Package d) Enterprise Research Package	1	3
(iii)	Alpha and Beta Testing are forms of (a) Acceptance testing b) Integration testing c) System Testing d) Unit testing	1	4
(iv)	Modifying the software to match changes in the ever changing environment is called (a) adaptive maintenance	1	5

	(b) corrective maintenance		
	(c) perfective maintenance		
	(d) preventive maintenance		
(v)	<p>MOCOMO stands for</p> <p>a) COMposite COSt Model</p> <p>b) CONstructive COSt Model</p> <p>c) CONstructive COMposite Model</p> <p>d) COMprehensive CONstruction MOdel</p>	1	3
(vi)	<p>Boundary value analysis belong to?</p> <p>a) White Box Testing</p> <p>b) Black Box Testing</p> <p>c) White Box & Black Box Testing</p> <p>d) Alpha Testing</p>	1	4
(vii)	<p>For a well understood data processing application it is best to use</p> <p>(a) The waterfall model</p> <p>(b) prototyping model</p> <p>(c) the evolutionary model</p> <p>(d) the spiral model</p>	1	3
(viii)	<p>Structured Analysis is based on the principles of</p> <p>a) Top-down decomposition approach</p> <p>b) Divide and conquer principle</p> <p>c) Graphical representation of results using DFDs</p> <p>d) All of the mentioned</p>	1	1
(ix)	<p>Which of the following life cycle model can be chosen if the development team has less experience on similar projects?</p> <p>a) Spiral</p> <p>b) Waterfall</p> <p>c) RAD</p> <p>d) Iterative Enhancement Model</p>	1	2
(x)	<p>Which one is not a risk management activity?</p> <p>a) Risk identification</p> <p>b) Risk generation</p> <p>c) Risk control</p> <p>d) Risk assessment</p>	1	3
(xi)	<p>CMM stands for</p> <p>a) Capability Management Module</p> <p>b) Conservative Maturity Model</p> <p>c) Capability Maturity Module</p> <p>d) Capability Maturity Model</p>	1	4
(xii)	<p>CASE stands for</p> <p>a) Cost Aided Software Engineering</p> <p>b) Computer Aided Software Engineering</p>	1	5

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- c) Control Aided Software Engineering
d) Configuration Aided System Engineering

Group B
(Short Answer Type Questions)
Answer any three of the following question.

(3X5)=15

SL. NO.		Marks	CO No.
2.	What is cohesion and coupling? What are the different types of cohesion in software design.	2+3	4
3.	What is Software development life cycle? Define with examples the different categories of software development life cycle models	1+4	1
4.	What is the major role of software project manager? What do you mean by Work Breakdown Structure (WBS)?	3+2	3
5.	(i) What are the different types of cost estimation techniques exist?	2	2
	(ii) Why COCOMO estimation model is used?	3	2
6.	What is software testing? Explain different types of software testing.	1+4	4

Group C
(Long Answer Type Questions)
Answer any three of the following question.

(3X15)=45

SL. NO.		Marks	CO No.																																					
7.	(i)	<table border="1"><tr><td>Act.</td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td><td>H</td><td>I</td><td>J</td><td>K</td></tr><tr><td>Prec.</td><td>-</td><td>-</td><td>-</td><td>A</td><td>B</td><td>B</td><td>C</td><td>E</td><td>D</td><td>F,G</td><td>H,I</td></tr><tr><td>Time</td><td>4</td><td>7</td><td>3</td><td>6</td><td>4</td><td>7</td><td>6</td><td>10</td><td>3</td><td>4</td><td>2</td></tr></table> <p>Consider the above software project.</p> <p>a) Draw the Network diagram for given project.</p> <p>b) Draw the GANTT chart for given project and find the critical path.</p>	Act.	A	B	C	D	E	F	G	H	I	J	K	Prec.	-	-	-	A	B	B	C	E	D	F,G	H,I	Time	4	7	3	6	4	7	6	10	3	4	2	4+4	3
Act.	A	B	C	D	E	F	G	H	I	J	K																													
Prec.	-	-	-	A	B	B	C	E	D	F,G	H,I																													
Time	4	7	3	6	4	7	6	10	3	4	2																													
	(ii)	<p>What do you mean by Software Maintenance?</p> <p>What are the different types of Software Maintenance?</p> <p>How do you estimate the Software Maintenance cost?</p>	1+3+3	4																																				
8.	(i)	Explain the Prototyping Model.	6	1																																				
	(ii)	What are the advantage and disadvantage of Spiral Model?	5	2																																				
	(iii)	Why spiral model considered to be a meta model?	4	3																																				
9.	(i)	What do you mean by Software Configuration Management?	2+3	2																																				
	(ii)	Explain different type of the Software Configuration Management tools																																						
		What is Risk Management?	1+2+2	3																																				
		Differentiate Reactive and Proactive Risk strategies.																																						
		How do you identify the software risk?																																						
	(iii)	What is difference between black box testing and white box testing?	2+2+1	4																																				
		Distinguish between alpha testing and beta testing																																						

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10.	(i)	What is smoke testing? What do you mean by software quality and reliability?	4	3
	(ii)	What are the difference between verification and validation?	4	3
	(iii)	Explain what are the different kinds of system testing that are usually performed on large software product.	7	4
11.	Write short notes on (Any three)			
		a) SRS document		1
		b) Six sigma		5
		c) COCOMO		3
		d) UML Diagram		2
		e) CASE tools		4