Total number of printed pages: **Programme(D)/05/DCSE502**

2022

SOFTWARE ENGINEERING

Full Marks: 100

Time: Three hours

The figures in the margin indicate full marks for the questions.

*Answer **any five** questions.*

1.	a)	When project planning is undertaken? What are the essential project planning activities? Show precedence ordering among planning activities.	1+5+4=10
	b)	Enlist the shortcomings of LOC as a measure of problem size. What is the function point metric?	5+5=10
2.		Explain the following terms with the help of a suitable example: a) Work Breakdown Structure b) Activity Network c) Critical Path Method d) Gantt Charts e) PERT Chart	4 x 5=20
3.	a)	What is risk in a software project? Describe following three essential activities of risk management: risk identification, risk assessment, and risk containment.	1+9=10
	b)	Discuss the important ways in which the analyst gathers requirements. What are the characteristics of a good SRS document?	5+5=10
4.	a)	Justify that “An understandable design is modular and layered”. What do you understand by cohesion and coupling?	5+5=10
	b)	What is the use of DFD? Describe the primitive symbols used for constructing DFDs. Give an example.	1+5+4=10

5.	a)	Discuss representative coding standards and representative coding guidelines.	4+6=10
	b)	What is the aim of software testing? Define error, failure, verification, and validation. What are the testing activities?	2+4+4=10
6.	a)	What do you understand by testing in large and testing in small? Describe driver and stub modules used in unit testing.	2+8=10
	b)	Give the definition of black-box testing and white-box testing. Describe the following black-box testing approaches: Equivalence class partitioning, Boundary value analysis.	2+4+4=10
7		Write short notes on	5 x 4=20
	a)	Spiral Model	
	b)	Basic COCOMO	
	c)	Software Configuration Management	
	d)	Functional and Non-Functional Requirements	
	e)	Structure Chart	

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