Total number of printed pages: **2**

Programme(UG)/VI/ UCSE602
2024

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)	Define the following terms in brief: i) Software Engineering ii) Requirement analysis iii) LOC iv) DFD v) Function point metric	2x5=10
	b)	Why is it important to follow a life cycle model in software development?	5
	c)	Mention the different reasons of software crisis.	5
2.	a)	How short term and long term memories are used to stores store information and produce output after processing? Explain with a suitable diagram.	10
	b)	What do you mean by outsourced project?	4
	c)	Briefly describe with a suitable diagram the working of a prototyping model.	6
3.	a)	Describe the COnstructive COst estimation Model (COCOMO) technique used for different classes of software development projects.	6
	b)	Mention the estimation of effort and development time given by basic COCOMO model for different classes of software products.	6
	c)	Functional independence is a key to any good software design. Why?	8
4.	a)	Briefly describe the characteristics of a good software requirement specification document.	10
	b)	How Cohesion is different from coupling? What is opinion about cohesion and coupling in the context of software design?	3+3=6
	c)	Differentiate between structured analysis and structured design?	4

5.	a)	Briefly describe the various types of coupling in decreasing order of severities.	10
	b)	Which model is known as meta model and why?	1+4=5
	c)	Describe the working principle of mixed team structure in a software project.	5
6.	Write short notes on any four of the followings:		5x4=20
	a)	Risk management	
	b)	Delphi cost estimation technique	
	c)	Evolutionary model	
	d)	Context diagram	
	e)	Functional Cohesion	
	f)	Software Project Management Plan	
	g)	Activity network	