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## P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

## Fifth Semester, B.E. - Computer Science and Engineering Semester End Examination; Feb. - 2021 Software Engineering

Time: 3 hrs Max. Marks: 100

## Course Outcomes

The Students will be able to:

CO1: Explore the various types of software process.

CO2: Elaborate the importance of software development.

CO3: Asses the significance of software engineering.

CO4: Compare different Software Development methods.

CO5: Identify the different forms of Software Development.

**Note:** I) **PART - A** is compulsory. **Two** marks for each question.

*II)* PART - B: Answer any <u>Two</u> sub questions (from a, b, c) for Maximum of 18 marks from each unit.

Q. No.	Questions	Marks	BLs	COs	POs
	I : PART - A	10			
I a.	List four sectors in Boehm's spiral model.	2	L4	CO1	PO2
b.	What are the key features of testing in XP?	2	L1	CO2	PO1
c.	Define sequence diagram and structural model.	2	L1	CO3	PO3,4
d.	What are the distinct goals of testing process?	2	L1	CO4	PO4
e.	Draw human needs hierarchy diagram in motivating people.	2	L6	CO5	PO5,10
	II : PART - B	90			
	UNIT - I	18			
1 a.	Explain waterfall model. List its advantages and disadvantages.	9	L5	CO1	PO2,PO3
b.	What are the attributes of good software? Explain the key challenges facing in software engineering.	9	L1,L5	CO1	PO1
c.	With a neat diagram, explain spiral process model.	9	L5	CO1	PO3
	UNIT - II	18			
2 a.	Explain the classification of non-functional requirement with a neat diagram.	9	L5	CO2	PO4
b.	Explain the structure of requirement document.	9	L5	CO2	PO10
c.	Explain ethnography and the process of requirement validation.	9	L5	CO2	PO4, PO12
	UNIT - III	18			
3 a.	Draw and explain the state diagram of a microwave oven.	9	L5,L6	CO3	PO4,PO5
b.	Explain;				
	i) Layered architecture	9	L5	CO3	PO3
	ii) Repository architecture				
c.	What is design pattern? Explain four elements of design pattern.	9	L1,L5	CO3	PO3

218CS54					Page No 2		
	UNIT - IV	18					
4 a.	Explain performance testing and user testing.	9	L5	CO4	PO4		
b.	Write a model of software testing process. Explain each activity in brief.	9	L5	CO4	PO4,PO5		
c.	Explain the common activities involved in the object oriented design process.	9	L5,L6	CO4	PO2,PO10		
	UNIT - V	18					
5 a.	With neat diagram, explain change management process.	9	L5	CO5	PO11, PO10		
b.	What is configuration management? Explain four activities of configuration management.	9	L5	CO5	PO11		
c.	Explain four critical factors in people management.	9	L5	CO5	PO10,PO11		

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