

Hall Ticket Number:

--	--	--	--	--	--	--	--	--	--	--	--

Code No. : 16234

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

Accredited by NAAC with A++ Grade

B.E. (C.S.E.) VI-Semester Main & Backlog Examinations, June-2022

Software Engineering

Time: 3 hours

Max. Marks: 60

Note: Answer all questions from Part-A and any FIVE from Part-B

Part-A (10 × 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO
1.	Explain the challenges in software?	2	2	1	1,2
2.	Give some software development myths?	2	3	1	1,2
3.	Illustrate the concept of agile process?	2	2	2	1,2
4.	What are the non-functional requirements of software?	2	1	2	1,2
5.	Discuss about events and signals?	2	2	3	1,2
6.	List out the various interface types?	2	4	3	1,2
7.	How to derive a test plan?	2	3	4	1,2
8.	State the objectives and guidelines for debugging.	2	3	4	1,2
9.	What are the software metrics for small organization?	2	1	5	1,2
10.	List out the metrics for testing?	2	4	5	1,2
Part-B (5 × 8 = 40 Marks)					
11. a)	Is it possible to combine process model? If yes, then explain using suitable example.	4	4	1	1,3
b)	Explain the spiral model in detail. Why this model is known as meta-model.	4	4	1	1,2
12. a)	Without developing an SRS document an organization might face severe problems. Identify those problems.	5	3	2	1,3
b)	You were a Software Engineer in a reputed Organization. You are supposed to design a website for an Engineering college. Analyze what are the important five items to be developed during a design phase.	3	4	2	1,4
13. a)	With the help of an example illustrate the Object-oriented design methodology using UML.	3	3	3	1,4
b)	Draw the usecase diagram and the activity diagram for an online airline reservation system. Summarize the purpose of each usecase, actor, and its importance. Briefly explain various activity states and action states in the activity diagram.	5	4	3	1,4

Contd... 2

14. a)	Differentiate between White Box Testing and Black Box Testing.	4	2	4	1,2
b)	What is software testing? What are Test Principles? What are the attributes of a "good" test?	4	1	4	1,2
15. a)	What is Software Configuration Management (SCM)? Explain the major tasks involved in SCM.	4	2	5	1,3
b)	While developing an application for Ola cab services, identify the different categories of Software Metrics you need to use while analyzing and testing this application.	4	4	5	1,4
16. a)	Explain why incremental development is the most effective approach for developing business software systems. Why is this model less appropriate for Realtime systems engineering?	4	4	1	1,3
b)	List and explain the various design principles that enables the software engineer to navigate the design process.	4	4	2	1,3
17.	Answer any <i>two</i> of the following:				
a)	State advantages of object-oriented design. What are the important features that characterize a good object-oriented design?	4	3	3	1,2
b)	What is the purpose of Basis Path Testing? Define Independent program path.	4	1	4	1,2
c)	Describe in detail about security engineering analysis?	4	2	5	1,2

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	20%
ii)	Blooms Taxonomy Level – 2	30%
iii)	Blooms Taxonomy Level – 3 & 4	50%

CSE