Roll No. | | | | | | | | | | | | |

SHAMBHUNATH INSTITUTE OF ENGINEERING AND TECHNOLOGY

Subject Code: BCS-601 Subject: Software Engineering

Course: B.Tech. Semester: 6th

SECOND SESSIONAL EXAMINATION, EVEN SEMESTER, (2024-2025)

Branch: Computer Science & Engineering

Time–1hr MaximumMarks–15

NOTE :(Attempt all sections)

1. Attempt *ALL* questions.

QN	QUESTION	Marks	CO	BL
a.	Write methods of requirements elicitation.	1	CO2	L2
b.	What do you mean by Feasibility Study?	1	CO2	L1
c.	Differentiate between functional and non-functional requirements?	1	CO2	L1
d.	Define SRS?	1	CO2	L1
e	What is decision table?	1	CO2	L1

2. Attempt any *ONE* of the following.

QN	QUESTION	Marks	CO	BL
a.	Distinguish between verification and validation.	5	CO2	L2
b.	What are the various stages of requirement engineering process? Explain it with diagrammatic representation.	5	CO2	L2

3. Attempt any *ONE* of the following

QN	QUESTION	Marks	CO	BL
a.	What do you understand by DFD? Explain basic blocks, which are used to build DFD with suitable example.	5	CO2	L3
b.	Explain SEI-CMM Model with suitable diagram.	5	CO2	L2

Bloom's Taxonomy Level(BL): -

Remember(L1), Understanding(L2), Apply(L3), Analyze(L4), Evaluating(L5), Creating(L6)

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SHAMBHUNATH INSTITUTE OF ENGINEERING AND TECHNOLOGY

Subject Code: BCS-601
Course: B. Tech

Subject: Software Engineering
Semester: 6th

THIRD SESSIONAL EXAMINATION, EVEN SEMESTER, (2024-2025)

Branch: Computer Science Engineering

Time–2hrs **Maximum Marks–45**

1. Attempt any FIVE questions

QN	QUESTION	Marks	CO	BL
a.	What is Modularity?	2	CO3	L1
b.	What is pseudo code?	2	CO3	L1
c.	What is LOC?	2	CO3	L1
d.	What do you mean by cohesion?	2	CO3	L1
e.	Write short notes on function-oriented design and object-oriented design.	2	CO3	L2
f.	What is design? Why design is important?	2	CO3	L2

2. Attempt any *ONE* of the following.

QN	QUESTION	Marks	CO	BL
a.	What do you mean by coupling? Explain the different types of coupling.	5	CO3	L2
b.	What is Cyclomatic complexity? Write all methods, which are used to calculate the Cyclomatic complexity of a control, flow graph.	5	CO3	L2
c.	What are software metrics? Explain function points in detail.	5	CO3	L2

3. Attempt any FIVE questions

QN	QUESTION	Marks	CO	BL
a.	What is software testing?	2	CO4	L2
b.	What is objective of software testing?	2	CO4	L1

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c.	Explain Code Inspection.	2	CO4	L2
d.	What is the difference between error and failure?	2	CO4	L1
e.	What are stub and driver?	2	CO4	L1
f.	Differentiate between alpha testing and beta testing.	2	CO4	L2

4. Attempt any *ONE of* the following.

QN	QUESTION	Marks	CO	BL
a.	What is difference between black box and white box testing?	5	CO4	L2
b.	Explain unit testing with suitable diagram.	5	CO4	L2
c	What is Integration Testing? Explain different approaches used for integration testing.	5	CO4	L3

5. Attempt any **FIVE** questions

QN	QUESTION	Marks	CO	BL
a.	Define risk.	2	CO5	L2
b.	Write briefly on CASE Tools.	2	CO5	L2
c.	Why is maintenance important in software engineering?	2	CO5	L2
d.	Explain the concept of reverse engineering.	2	CO5	L3
e.	Explain concept of re-engineering of software.	2	CO5	L3
f.	What do you understand by software maintenance?	2	CO5	L1

6. Attempt any *ONE of* the following

QN	QUESTION	Marks	CO	BL
a.	Explain various software configuration management activities.	5	CO5	L3
b.	Write short note on constructive cost model (COCOMO).	5	CO5	L3
c	Suppose that a project was estimated to be 400 KLOC. Calculate the effort and development time of three modes i.e. organic, semidetached, and embedded.	5	CO5	L4

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