



Roll No:

**BTECH**  
**(SEM VII) THEORY EXAMINATION 2024-25**  
**SOFTWARE TESTING**

TIME: 3 HRS

M.MARKS: 100

Note: Attempt all Sections. In case of any missing data; choose suitably.

**SECTION A**

1. Attempt all questions in brief. 2 x 10 = 20

Q no.	Question	CO	Level
a.	Define the term Software Engineering.	1	K1
b.	Explain SQA.	1	K2
c.	Explain Mutation testing.	2	K2
d.	Describe the term Path testing.	2	K1
e.	What is test case prioritization in regression testing?	3	K1
f.	Explain Risk Analysis.	3	K2
g.	Explain debugging in software development?	4	K2
h.	What is exploratory testing, and why is it useful?	4	K1
i.	Explain the need of security Testing.	5	K2
j.	Define Post Deployment Testing.	5	K1

**SECTION B**

2. Attempt any three of the following: 10 x 3 = 30

Q no.	Question	CO	Level
a.	Explain the significance of walkthroughs and inspections in the verification process. How do they differ, and when should each be used?	1	K2
b.	Define Cyclomatic Complexity. How it can be calculated?	2	K1
c.	Illustrate regression testing, and why is it critical in the software development lifecycle?	3	K3
d.	What are the main levels of software testing, and what are their objectives?	4	K1
e.	Explain Class testing with the help of an example.	5	K2

**SECTION C**

3. Attempt any one part of the following: 10 x 1 = 10

Q no.	Question	CO	Level
a.	Define SRS. Also discuss source code reviews and software project audit.	1	K1
b.	Explain the various phases of the Software Development Life Cycle (SDLC). Highlight the role of testing in each phase and explain how testing aligns with SDLC.	1	K2

4. Attempt any one part of the following: 10 x 1 = 10

Q no.	Question	CO	Level
a.	Discuss Decision Table-Based Testing as a systematic functional testing approach. How are decision tables created, and how do they ensure comprehensive test coverage?	2	K2
b.	Define Functional Testing. Also explain Boundary Value Analysis and Equivalence Class Testing.	2	K1



Roll No:

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

**BTECH**  
**(SEM VII) THEORY EXAMINATION 2024-25**  
**SOFTWARE TESTING**

TIME: 3 HRS

M.MARKS: 100

5. Attempt any *one* part of the following: 10 x 1 = 10

Q no.	Question	CO	Level
a.	What is the code coverage prioritization technique in regression testing? Explain how modified code segments are identified, mapped to test cases, and prioritized for execution.	3	K2
b.	What is Regression Test cases selection? How we can reduce the number of test cases in Regression Testing.	3	K1

6. Attempt any *one* part of the following: 10 x 1 = 10

Q no.	Question	CO	Level
a.	Illustrate Automated test data generation. Discuss how test data is generated using genetic algorithm.	4	K3
b.	List various software Testing Tools. Discuss the functionality of each tool in detail.	4	K1

7. Attempt any *one* part of the following: 10 x 1 = 10

Q no.	Question	CO	Level
a.	What is object-oriented testing, and how does it differ from traditional testing methods?	5	K1
b.	Explain web application testing. why is it important? Outline the primary objectives and challenges of testing web applications.	5	K2

<https://www.aktuonline.com>

Whatsapp @ 9300930012

Send your old paper & get 10/-

अपने पुराने पेपर्स भेजे और 10 रुपये पायें,

Paytm or Google Pay से