

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2025

M.Tech-II Semester (CSE)

COURSE CODE (CREDITS): 18M1WCI115 (3)

MAX. MARKS: 35

COURSE NAME: Secure Software Design

COURSE INSTRUCTORS: Dr. Nishant Sharma

MAX. TIME: 2 Hours

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

Q.No	Question	CO	Marks
Q1	a) A company developing a payment processing system needs to ensure security and compliance. Suggest a secure test strategy using boundary testing and negative testing. b) List applicable compliance standards to above problem and describe how the development team can ensure compliance during development and deployment.	4	6+4
Q2	Discuss how OWASP ZAP and Burp Suite are used for security testing. Highlight at least three features of each and compare their typical usage scenarios.	4	5
Q3	a) Define penetration testing. Mention two objectives of conducting it. b) What is fuzz testing? How does it help in software security?	4	2+3
Q4	a) Differentiate between static and dynamic analysis with examples. b) Name two tools used in vulnerability scanning and explain one.	4	3+3
Q5	Describe the process of building a compliance roadmap in software projects. Explain key steps in detail.	4	5
Q6	a) What is the difference between black-box, white-box, and gray-box penetration testing? Provide one advantage of each. b) What is the purpose of using tools like Metasploit in penetration testing? Mention one use case.	4	2+2