

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

Make-up Examination-Nov-2025

B.Tech-7th Semester (CSE/IT)

COURSE CODE (CREDITS): 18B1WCI736(3)

MAX. MARKS: 25

COURSE NAME: Storage Networks

MAX. TIME: 1 Hour 30 Minutes

COURSE INSTRUCTORS: Dr Pankaj Dhiman, Mr. Akshay Kumar

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	Explain in detail the difference between RAID 0+1 and RAID 10 configurations. Which of the two RAID levels is preferable in terms of performance and fault tolerance? Justify your answer with proper reasoning.	2	5
Q2	Describe the functions of LUN Masking and Remote Mirroring in an Intelligent Disk Subsystem. Discuss how these functions contribute to data protection, accessibility, and system reliability.	2	5
Q3	Explain the functions of each layer in the Fibre Channel Protocol Stack. Illustrate how these layers collectively ensure reliable, high-speed communication within a Storage Area Network (SAN).	3	5
Q4	Explain in detail the hardware and software components of a Fibre Channel Storage Area Network (SAN). Discuss how these components work together to provide efficient data storage and management.	3	5
Q5	Differentiate between FCIP (Fibre Channel over IP) and iFCP (Internet Fibre Channel Protocol). Explain the architectural differences, working principles, and suitable use cases for both protocols in enterprise-level storage networking.	3	5