JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATIONS-2022

B.Tech-VII Semester (CSE & IT)

COURSE CODE (CREDITS): 18B1WCI736 (3)　　　　　MAX. MARKS: 25

COURSE NAME: STORAGE NETWORKS

COURSE INSTRUCTORS: Dr. P.K. Gupta　　　　　MAX. TIME: 1 Hr. 30 Min.

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

Q1.　　　　　　　　　　　　　　　　　　　　　　　　[CO4]

a) Discuss the storage architecture used by most of the organizations and data centers over fiber channel. List the various advantages and security mechanism of this architecture. [2]

b) List the various management techniques used to manage the storage networks? How these techniques are found similar with the management techniques used in computer networks? Discuss any one technique that is only used in storage networks. [3]

Q2. In a departmental architecture of NAS various protocols, devices file systems and operating systems are used. Provide the simple NAS solution consisting of above mentioned components and also indicate the 5 different types of ports with 2 different types of file systems used in your design. (Ports should not be repeated with the use of hybrid ports). [CO4] [5]

Q3. Modern storage environment is commonly composed of heterogeneous storage devices. Traditional caching algorithms are not sufficient to provide the performance to these devices. Design an effective cache algorithm HCM for heterogeneous storage systems. List the various advantages of it over traditional cache algorithms. [CO3] [5]

Q4. Establish the management framework for ILM and also discuss the basic ideas inherent in ILM. [CO2] [5]

Q5. Explain the significance of term the **FCoE**. Which protocol is best suited to explain the functionality of **FCoE**? Differentiate the role of this protocol with the other protocols that falls into the same category of storage area network. [CO4] [5]