JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2023

B.Sc(Hons.) -I Semester (Mathematics)

COURSE CODE (CREDITS): 22BS1CI112   MAX. MARKS: 25

COURSE NAME: Fundamentals of Computer Hardware and Networking

COURSE INSTRUCTORS: Dr. Nishant Sharma   MAX. TIME: 1 Hour 30 Minutes

Note: (a)All questions are compulsory.

(b)Marks are indicated against each question in square brackets.

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

Q1. What do we understand by terms: LAN, MAN and WAN. Use suitable diagram to explain. If we need to implement a network within a limited area such as JUIT, which category will it fall into?   [3 marks] [CO-3]

Q2. Write short notes on:

1) Client-server architecture based network
2) Peer-to-peer network.
3) Internet and Intranet.
4) PCI Card, NIC card and graphics card.   [4*2 =8 marks] [CO-3]

Q3. What do we understand by spooling in printers? How does a laser printer work? How is it different than other printers (say ink-jet printers)?   [3 marks] [CO-4]

Q4. (a) You are setting up a network with multiple switches. Switch A has 24 ports, and Switch B has 16 ports. If each switch is connected to the other with one Ethernet cable, how many total connections (links) will there be between the two switches?

(b) Write at least four differences between a switch and a hub?   [2 + 3 marks] [CO-4]

Q5. What are different types of storages available in a computer system? Explain difference between volatile and non-volatile memory? What is Solid State Drive (SSD) and how is it different than a Hard Disk Drive (HDD)?   [6 marks] [CO-2]