**DNYAN PRASARAK SHIKSHAN SANSTHA’S**

**SANDESH COLLEGE OF ARTS, COMMERCE & SCIENCE**

**SY BSC.IT A.T.K.T SEMESTER 3 EXAMINATION FEBRUARY 2024 SUBJECT: COMPUTER NETWORKS**

**Marks: 75 Time: 2.30 Hours**

1. **Answer the following questions (ANY 3)** **15 Marks**

What is computer networks and explain different types of computer networks?

Explain Half Duplex and Full Duplex System in detail with diagram.

What are the different ways to access the Internet.

Explain Physical topology.

Explain OSI Model in Detail.

Difference between signal element and data element.

1. **Answer the following questions (ANY 3)** **15 Marks**

Explain Synchronous TDM.

Explain Direct Hoping Spread Spectrum.

What Circuit Switched Networks and explain three phase communication.

Explain Wavelength Division Multiplexing?

What is Packet Switching? Explain its method of implementation.

Explain Unguided Media & types of Unguided Media with diagrams.

1. **Answer the following questions (ANY 3) 15 Marks**

Explain Carrier Sense Multiple Access (CSMA)

What is Code-Division Multiple Access (CDMA)

Explain Polling.

Differentiate between Switches and Hubs.

Write a short note on Cellular Telephony.

Explain Bluetooth.

1. **Answer the following questions (ANY 3) 15 Marks**

What is Forwarding Based on Destination Address?

Explain Dynamic Host Configuration Protocol (DHCP)

Explain the two ways of forwarding of IP Packets.

Write a note on IPv4 and IPv6.

What is routing information protocol? Explain the RIP algorithm.

Explain Distance Vector Routing.

1. **Answer the following questions (ANY 3) 15 Marks**

Explain Domain Name System (DNS).

Explain File Transfer Protocol (FTP).

Difference between TCP and UDP.

Discuss the 3 way handshake in TCP for connection establishment.

Explain TCP Timers.

Explain HTTP.

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