

IT307

Enrol. No. A239220069

[ET]

END SEMESTER EXAMINATION : NOV-DEC 2022

EXPLORING THE NETWORKS

Time : 3 Hrs.

Maximum Marks : 60

Note: *Attempt questions from all sections as directed.*

SECTION – A (24 Marks)

Attempt any four questions out of five.

Each question carries 06 marks.

1. Explain the Shielded twisted pair (STP) and Unshielded twisted pair(UTP)
2. Explain how the TCP/IP model and OSI model are used to facilitate standardization in the communication process.
3. Explain IPV4 packet with detail diagram

P.T.O.

4. (a) What are the types of port numbers used in transport layer? (3)
- (b) Explain DNS with reference to its components and working. (3)
5. Give the datagram format of UDP?

SECTION – B (20 Marks)

Attempt any two questions out of three.

Each question carries 10 marks.

6. (a) How does ARP works and explain its different types (6)
- (b) Explain the adaptive flow control and retransmission techniques used in TCP. (4)
7. (a) What information does an end device need to have to communicate with remote networks? (6)
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- (b) What are the advantages of using UDP over TCP? (4)
8. (a) Write the IP address 135.1.1.25 mask 255.255.248.0 in CIDR notation (6)
- (b) What is the difference between port address, logical address and physical address (4)

SECTION – C (16 Marks)
(Compulsory)

9. (a) Subnet the Class C IP Address 205.11.2.0 so that you have 30 subnets. What is the subnet mask for the maximum number of hosts? How many hosts can each subnet have? What is the IP address of host 3 on subnet 2 ? (7)
- (b) Why is IPV4 to IPV6 transition required? When is ICMP redirect message used? (5)

(c) What do you mean by slow start in TCP congestion? What are the fields on which the UDP checksum is calculated? Why (4)