

226C71) (21)

**FACULTY OF ENGINEERING & TECHNOLOGY**  
**UNIVERSITY OF LUCKNOW**  
Mid-Term Examination -1  
B.Tech. SEMESTER - VI, 2023-24

Student's Name & Roll No. ....

Subject Code: CS-602

Time: 1 Hrs.

Instruction: Attempt all sections.

Subject: Computer Network

Max. Marks: 20

Branch: CSE, AI

**SECTION A**

(1X5 = 5)

**1. Attempt all parts**

- What will be the window size in Go-Back-N ARQ protocol?
- What is difference between broadcast and directed broadcast?
- A class C network is purchased by an organization, what possible no of static IP can be generated?
- What is hamming distance?
- Generate the hamming code for data 111011001 with even parity.

**SECTION B**

(5X3 = 15)

Answer any **THREE** questions.

- A channel has a bit rate of 4 kbps and one-way propagation delay of 20 ms. The channel uses stop and wait protocol. The transmission time of the acknowledgement frame is negligible. To get a channel efficiency of at least 50%, the minimum frame size should be.
- Station A uses 32-byte packets to transmit messages to Station B using sliding window protocol. The round-trip delay between A and B is 80 milliseconds and the bottleneck bandwidth on the path between A and B is 128 kbps. What is the optimal window size that A should use?
- Explain CRC error detection method.
- What is class full addressing? Explain.