Instructions for CA-2 K20BE

1. **1. You must write the answers to the questions in the relevant set that has been assigned to you, solve them, and write section no., roll no. each page.**
2. **You must submit your CA-2 by the period specified in your UMS, and you must send your response sheet solely through UMS.**
3. **No exceptions will be made for late submissions, and no alternative will be supplied in any case.**
4. **Copying assignments from fellow colleagues is not permitted and should be absolutely avoided. Your copies will be thoroughly checked for any plagiarism.**
5. **Even if two students are given the identical set of questions to answer, their explanation methods may differ. In this case, we shall compare all of the students' response sheets before assigning grades. So be cautious and devote some of your time to this activity in order to get the necessary expertise.**
6. **The class's even roll numbers must complete SET-1, while odd roll numbers must complete SET-2.**

Assignment-1
Set-1: Even roll numbers

Course Code: ***cse306***
Course Title: **Computer networks Max. Marks:30**

Section: Marks Obtained:

Student Name: _____

Reg. Number: _____

Roll Number: _____

Q1. (a) Assume that transmitted code word is actually received as 10101010101. Find out the check bits to determine the single bit error. (5)

(b) Explain Stop and wait ARQ in detail with timeline diagram. (5)

Q2 (a) Two 8-bit numbers in a hexadecimal are E3 and FE. Obtain the checksum. (5)

(b) Explain in detail each field of IPv4 header. (5)

Q3. A host IP address is given as 220.10.120.100/26. Then -

(a) Obtain its subnet address

(b) How many hosts can be there in this subnet?

(c) What is the address range for them?

(d) What is the subnet broadcast address? (10)

Assignment-1
Set-2: For odd roll numbers

Course Code: ***CSE306***
Course Title: Computer **Networks Max. Marks:30**
Only handwritten assignments duly uploaded on UMS before the last date will be accepted.
Section: Marks Obtained

Student Name: _____

Reg. Number: _____

Roll Number: _____

Q1. (a) Find CRC code for message bits to be transmitted which is 11001110 with generator value 1011 known to receiver. (5)

(b) Explain in detail Go-Back-N ARQ Protocol with timeline diagram. (5)

Q2: (a) (a) Two 8-bit numbers in a hexadecimal are 05 and 06. Obtain the checksum. (5)

(b)Explain in detail each field of IPv6 header. (5)

Q3: A network is given as 190.28.0.0/16. Eight subnets are to be created.

(a) What will be the CIDR network prefix?

(b) Express last subnet in dotted decimal notation with mask.

(c) What is the maximum number of hosts in each subnet?

(d) What is the address range for hosts in second subnet?

(e) What is the subnet broadcast address for the first subnet? (10)