# C. U. SHAH UNIVERSITY
## Winter Examination-2021

**Subject Name: Computer Networks**

**Subject Code: 4TE05CNW1**                    **Branch: B.Tech (CE)**

**Semester: 5**          **Date: 16/12/2021**          **Time: 11:00 To 02:00**          **Marks: 70**

Instructions:
  (1) Use of Programmable calculator & any other electronic instrument is prohibited.
  (2) Instructions written on main answer book are strictly to be obeyed.
  (3) Draw neat diagrams and figures (if necessary) at right places.
  (4) Assume suitable data if needed.

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**Q-1**          **Attempt the following questions:**                                        **(14)**

  **a)** Class A has_____bit of NetID.

  **b)** Define:Computer Network.

  **c)** Which of the following TCP/IP protocols is used for transferring files
       form one machine to another?
       A) FTPB) SNMPC) SMTPD) RPC

  **d)** Which of the following TCP/IP protocols is used for receiving email
       form one machine to another?
       A) POP2      B) SNMP          C) SMTP          D) PEP2

  **e)** Which layers of the OSI determines the interface often system with the
       user?
       A) Application      B) NetworkC) Data link          D) Session

  **f)** In a ................topology, if there are n devices in a network, each device
       has n-1 ports for cables.
        A)   Bus              B) StarC) Mesh              D) Ring

  **g)** Discuss Half duplex with example.

  **h)** Subnet mask 255.0.0.0 belongs to Class_____.

  **i)** What is framing?

  **j)** Which service is provided by HTTP?

  **k)** What is virtual circuit network?

  **l)** What is Gateway?

  **m)** What is subnet mask?

  **n)** What is Protocol?

**Attempt any four questions from Q-2 to Q-8**

| **Q-2** | | **Attempt all questions** | |
|---|---|---|---|
| | **a)** | Explain OSI\ISO reference model and its function. | **07** |
| | **b)** | Differentiate between Connection oriented and Connectionless services. | **07** |

| **Q-3** | | **Attempt all questions** | |
|---|---|---|---|
| | **a)** | Explain CSMA/CD protocol in detail. | **07** |
| | **b)** | Write short note on DNS. | **07** |

| **Q-4** | | **Attempt all questions** | |
|---|---|---|---|
| | **a)** | What is network topology? Explain different types of network topology. | **07** |
| | **b)** | Explain CRC code generation with example. | **07** |

| **Q-5** | | **Attempt all questions** | |
|---|---|---|---|
| | **a)** | Explain TCP segment structure and justify the importance of its field values. | **07** |
| | **b)** | What is Guided Transmission Media? Explain Twisted Pair, Coaxial Cable, & Fiber Optics. | **07** |

| **Q-6** | | **Attempt all questions** | |
|---|---|---|---|
| | **a)** | Write short note on HDLC. | **07** |
| | **b)** | Explain functionality of Bridge, Hub, Switch, Router and Repeater. | **07** |

| **Q-7** | | **Attempt all questions** | |
|---|---|---|---|
| | **a)** | Write short note on BGP. | **07** |
| | **b)** | Explain IPv4 datagram format and importance of each field. | **07** |

| **Q-8** | | **Attempt all questions** | |
|---|---|---|---|
| | **a)** | Write short note on X.25 and ATM. | **07** |
| | **b)** | Explain Distance Vector routing with example. | **07** |