Code No: R1632051 **R16** SET - 1

III B. Tech II Semester Supplementary Examinations, February-2022

COMPUTER NETWORKS

(**Common to** CSE and IT)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B)**
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**

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PART –A **(14 Marks)**

1. a) What are the goals of computer network? [2M]
   b) What is the Maximum Data rate of a Channel? [2M]
   c) With neat sketch explain the basic concept involved in Elementary Protocol: stop and wait. [2M]
   d) Define MAC and LLC. [3M]
   e) Define static and dynamic routing. [3M]
   f) What is URL? [2M]

PART –B **(56 Marks)**

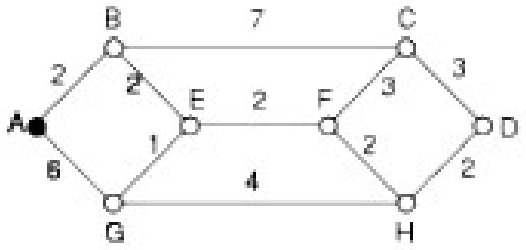
2. a) Explain in detail about LAN & WAN. What are the advantages and disadvantages? [7M]
   b) Explain in detail about TCP/IP reference model. [7M]

3. a) Distinguish between frequency division multiplexing and time division multiplexing. Draw the neat schematics of these schemes. [7M]
   b) What are the elementary data link protocols? Explain in detail. [7M]

4. a) Explain in detail about the sliding window protocol using Go-Back-NA. [7M]
   b) Explain error correction. When sender transmits the data to the receiver. Data be m = 100110 and find out the 6^{th} position of an error between the transmission. [7M]

5. a) Discuss in brief the MAC frame structure for IEEE 802.3. [7M]
   b) Explain ALOHA and types of ALOHA in detail. [7M]

6. a) How is the Connection-Oriented Services implemented? Explain. [7M]
   b) Discuss the shortest path routing algorithm with an example. [7M]



7. a) Give the format of the UDP segment and TCP segment? Explain when UDP is preferred to TCP. [7M]
   b) Explain the architecture of E-Mail. [7M]

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