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Total No. of Pages : 01

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M.Tech. (ECE) (2018 Batch) (Sem.-2)

**VOICE AND DATA NETWORKS**

Subject Code : MTEC-PE3D-18

M.Code : 76264

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :****1. Attempt any FIVE questions out of EIGHT questions.****2. Each question carries TWELVE marks.**

1. Explain various centralized and distributed approaches used for network design. Also, describe various design issues in voice and data networks?
2. State and explain Little's theorem? Also describe various Multiple Access Protocols in Queuing model of networks.
3. Compare the following :
  - a) Wired and Wireless Voice Network
  - b) ARQ and HARQ
4. Explain link layer design and selective repeat protocols and their analysis in details.
5. What is Classless Inter Domain Routing of Networks? Also, explain the concept of IP Protocol and sub netting in detail.
6. How congestion can be controlled in networks? Explain various packet scheduling algorithms used in networks.
7. Explain the concept of Go Back N ARQ protocol and routing in internet with suitable example.
8. Write Short Notes on :
  - a) Statistical Multiplexing
  - b) Network Calculus
  - c) Carrier Sensing

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**