## III B. Tech I Semester Supplementary Examinations, October/November- 2018 DATA COMMUNICATION

(Common to Computer Science Engineering and Information Technology)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (Part-A and Part-B) 2. Answering the question in **Part-A**is compulsory 3. Answer any THREE Questions from Part-B PART -A How we can check the effectiveness of data communication? 1 a) [3M] b) What are the classes of transmission media? [4M] Define A law companding and  $\mu$  law companding c) [4M] d) What are the Optical Properties of Radio Waves? [4M] Explain the Call Progress Tones and Signals. e) [4M] f) What is meant by Modem Synchronization? [3M] PART-B Explain about Data communication networks. 2 a) [4M] Discuss about ISO/OSI reference model with neat sketch. b) [8M] What is the significance of layered architecture in Computer networks? c) [4M] 3 a) Write the advantages of optical fiber communication. [3M] with neat block diagram, explain the general system of optical fiber communication b) [8M] Discuss about laser diode. c) [5M] What are the drawbacks of DM? How can we overcome those drawbacks? [8M] a) Discuss about WDM in detail. [8M] b) a) List and explain the Optical Properties of Radio Waves? [8M] Discuss in brief the application of satellite communications. b) [8M] Explain the concept of Paging systems. 6 a) [8M] b) List out the Difference between analog and digital systems. [8M] Explain the significance of barcodes in detail 7 a) [8M]

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[8M]

b)

Write short notes on 56K Modems.