

Hall Ticket Number:

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Code No.: 22517 AS

**VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD**  
**B.E. (I.T.) II Year II-Semester Advanced Supplementary Examinations, June/July-2017**

**Data Communication**

Time: 3 hours

Max. Marks: 70

*Note: Answer ALL questions in Part-A and any FIVE from Part-B*

**Part-A (10 × 2 = 20 Marks)**

1. Define Data Communication and Channel Capacity.
2. Why layered concept is needed in Protocol Architecture?
3. List the different flow control and error control techniques.
4. What is meant by line configuration?
5. With a schematic explain how statistical TDM Efficiently utilize Bandwidth.
6. State the significance of ATM Adaptation Layer.
7. State various implementations of traditional Ethernet.
8. Write the significance of MAC layer.
9. List and define three transmission techniques for infrared LANs.
10. Explain IEEE 802.11 MAC Frame format.

**Part-B (5 × 10 = 50 Marks)**

11. a) Explain about TCP/IP layers. [6]  
b) Differentiate BPSK and QPSK. [4]
12. a) Explain CRC error detection technique in detail. [5]  
b) Write in detail the frame structure of HDLC. [5]
13. a) Compare circuit switching and packet switching. [5]  
b) Describe the ATM cell header format. [5]
14. a) Explain the Ethernet frame format. [5]  
b) State the difference between Fast Ethernet and Gigabit Ethernet. [5]
15. a) Explain IEEE 802.11 Architecture and Services. [5]  
b) Explain Bluetooth architecture. [5]
16. a) With neat diagram explain about Delta Modulation. [5]  
b) Explain various types of ARQ'S. [5]
17. Write short notes on any *two* of the following:  
a) xDSL [5]  
b) CSMA/CD [5]  
c) Principles of Cellular Networks. [5]