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Total No. of Pages : 02

Total No. of Questions : 09

**M.Sc.(IT) (2015 Batch) (Sem.-2)**  
**DATA COMMUNICATION & NETWORKS**  
Subject Code : MSIT-201  
Paper ID : [72728]

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.
3. Any missing data may be assumed appropriately.

**SECTION-A**

1. a) Write a short note on Modulation.  
b) What are the advantages of digital communication?
2. a) Write a short note on Network software.  
b) What do you know about Wireless Transmission?

**SECTION-B**

3. What are error detection and error correction codes?
  4. a) Explain the carrier sense multiple accesses with collision detection.  
b) Discuss various wireless LAN protocols.
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### SECTION-C

- 5 Name different routing algorithms and write a note on any of one.
- 6 Discuss common commands used for troubleshooting the networks.

### SECTION-D

- 7 Explain the addressing establishment and releasing a connection in transport layer.
- 8
  - a) Write a short note on File Transfer Protocol.
  - b) Discuss Email security issues.

### SECTION-E

- 9 **Write briefly :**
    - a) Explain the working of ISDN.
    - b) Compare OSI with TCP/IP.
    - c) Discuss multicast network.
    - d) What are advantages of Fiber Optics?
    - e) Write in short IEEE standard 802.3.
    - f) Write a short note on Domain Name System.
    - g) Define CSMA/CA.
    - h) Differentiate Routers and Gateways.
    - i) Write a short note on HTTPS.
    - j) Explain buffering.
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