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**Term End Examination – December, 2017**  
**Program Title: Diploma in Cyber Security**  
**Course Title: DATA COMMUNICATION AND NETWORKING**  
**Course Code: DCS-02**  
**(Session 2016-17)**

**Time - 3 hours**

**Full Mark - 100**

*(Answer any four questions from Group - 'A', any two questions from Group - 'B' and any three questions from Group - 'C')*

**Group 'A'**

Mark: 5 X 4= 20

*(Answer any four questions each within 100 words)*

Q. No. 1

- a) List out different types of components in data communication system.
- b) What is Modulation?
- c) What are the advantages and disadvantages of twisted pair cable?
- d) What is TELNET and explain it?
- e) Define transit time and response time.
- f) Explain about the different types of multiplexing techniques.
- g) What is the need for transport layer?

**Group 'B'**

Mark: 10 X 2= 20

*(Answer any two questions each within 250 words)*

Q. No. 2

- a) Differentiate between half duplex and full duplex communication.
- b) Which layer is responsible for routing in an inter-network and explain it?
- c) What is the basic purpose of setting up a LAN and explain it?
- d) Differentiate between the wired and wireless transmission media.
- e) Compare the layers of OSI Model with that of TCP/IP model.

**Group 'C'**

Mark: 20 X 3= 60

*(Answer any three questions each within 500 words)*

Q. No.

3. What is a protocol? What are the key elements of a protocol?
  4. Discuss the features and scope of different categories of Networks: LAN, MAN and WAN.
  5. What is transmission media? Explain about categories of transmission media with its figure.
  6. Explain the functions of different layers of OSI Model.
  7. Discuss about the different types addressing with its example.
  8. What is Modulation? Explain about different types of modulation.
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