

**Term End Examination - June, 2017**  
**Diploma in Cyber Security**  
**DCS-02: DATA COMMUNICATION AND NETWORKING**  
**(2016 Syllabus)**

**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 data in data communication.
- b) Define a computer network.
- c) What are the advantages and disadvantages of twisted pair cable?
- d) Write the steps to convert analog to digital conversion.
- e) Write the short notes about ARP.
- f) Explain about the different types of switching techniques?
- g) What is the principle of Token ring?

**Group 'B'**

Mark: 10 X 2= 20

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

Q. No. 2

- a) What is the basic purpose of setting up a LAN in networks?
- b) Differentiate between the wired and wireless transmission media.
- c) Which layer is responsible for routing in an inter-network and explain it?
- d) Explain different types of addresses used in TCP/IP.
- e) Discuss the advantages and disadvantages of Frequency Division Multiplexing.

**Group 'C'**

Mark: 20 X 3= 60

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

- Q. No.3. Explain about Transmission media. Compare the merits and demerits of Guided and Unguided transmission Media.
4. Differentiate the features of twisted pair, coaxial cable and fiber optic cables.
  5. Write the short note about the TCP and UDP. Find out and differentiate between TCP and UDP.
  6. Discuss the functions of different layers of OSI Model.
  7. Discuss about the different types of addressing with its example.
  8. What is Modulation? Explain about different types of modulation.