

**Term End Examination - June, 2019**  
**Master of Science (Cyber Security)**  
**Post Graduate Diploma in Cyber Security (PGDCS)**  
**Advance Diploma in Cyber Security (ADCS)**

**DATA COMMUNICATION & NETWORKING**

**Time -3 Hours**

**Full Marks -100**

*(Answer All the questions form Group-A which is compulsory, any four questions from Group - 'B', any four questions from Group - 'C' and any two questions from Group - 'D')*

**Group 'A'**

**Q. No. 1 Answer all the questions, each within one or two sentences** **Marks: 1 × 10=10**

- a) Which data transmission mode is unidirectional?
- b) Write down two versions of IP protocol.
- c) Write down two names of Web server.
- d) List two responsibilities of Data Link Layer.
- e) What does SMTP stand for?
- f) Write down two disadvantages of FDM.
- g) List two services of data link layer.
- h) What is HTTPS?
- i) What is the full form of POP protocol?
- j) Which layer links the network support layers and user support layers?

**Group 'B'**

**Q. No. 2 (Answer any four questions each within 100 words)** **Marks: 5 × 4= 20**

- a) Which is reliable - TCP or UDP? Why?
- b) Define Congestion Control.
- c) What do you mean by reliability of a computer network?
- d) Explain the advantages of computer network.
- e) What are the characteristics of data communication?
- f) What is meant by quality of service?

**Group 'C'**

**Q. No. 3 (Answer any four questions, each within 200 words)** **Marks: 10 × 4= 40**

- a) What is TDM? Explain the advantages and disadvantages of it.
- b) Explain different characteristics of data communication.
- c) What is an Internet? Write different application examples of internet.
- d) Write down all transport layer services of OSI model.
- e) Discuss different line coding schemes.
- f) Differentiate between connectionless and connection oriented operation.

**Group 'D'**

**Q. No. 4. (Answer any two questions, each within 300 words)** **Marks: 15 × 2=30**

- a) Compare the layers of OSI Model with that of TCP/IP model.
- b) What are the basic network topologies? Write the features, advantages and disadvantages of Star and Bus topology.
- c) Differentiate the features of twisted pair, Coaxial Cable and fiber optic cables.