

Term End Examination - December, 2016

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: $5 \times 4 = 20$

(Answer any four questions each within 100 words)

Q. No. 1

- (a) List out five components of data communications system.
- (b) Differentiate half duplex and full duplex communication.
- (c) What is the basic purpose of setting up a LAN?
- (d) If n numbers of devices to be connected, how many cable links are required for a mesh, ring, and star topology? Explain.
- (e) What is the difference between the physical and logical addressing?
- (f) What are the advantages of UDP?
- (g) What is the need for transport layer?

Group 'B'

Mark: $10 \times 2 = 20$

(Answer any two questions each within 250 words)

Q. No. 2

- (a) Differentiate between the two categories of networks LAN and WAN.
- (b) What is a protocol? What are the key elements of a protocol?
- (c) Differentiate between analog and digital signals
- (d) Compare the protocols HTTP and FTP
- (e) Write a brief notes on WWW

Group 'C'

Mark: $20 \times 3 = 60$

(Answer any three questions each within 500 words)

Q.No. 3. Discuss the merits and demerits of LAN and WAN.

4. Outline the functions of different layers of OSI Model.
5. Differentiate between TCP and UDP.
6. Write the basic functions of e –mail systems
7. What is Internet? What are the applications of Internet?
8. Discuss the advantages and disadvantages of Time Division Multiplexing and Frequency Division Multiplexing.