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Group—D

4. Answer any *two* questions each within  
300 words : 15×2=30
- (a) Explain in detail Network Topology.
- (b) Write short notes on the following :
- (i) www
- (ii) MAC
- (iii) TCP/IP.
- (c) Explain the different multiplexing techniques in detail.

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Course Code <b>CSP - 11</b> <b>DCS - 02</b> <b>DCA - 03</b>
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**Term End Examination - December, 2019**

DATA COMMUNICATION & NETWORKING

Post Graduate Diploma in Computer Application  
(PGDCA)

Advance Diploma in Computer Application  
(ADCA)

Diploma in Computer Applications (DCA)  
Diploma in Cyber Security (DCS)

Time : 3 hours

Full Marks : 100

*The figures in the right-hand margin indicate marks*

Answer **all** Groups as directed

Group—A

1. Answer *all* the questions, each within 1  
word or 1 sentence: 1×10=10
- (a) Give one example of simplex and half-  
duplex data transmission.
- (b) Which protocol is reliable: TCP/UDP?
- (c) What does HTTP stands for?

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- (d) What is the full form of MAN?
- (e) Write two functions of transport layer.
- (f) Define Congestion Control.
- (g) List two services of data link layer.
- (h) Write two characteristics of a firewall.
- (i) What is antivirus?
- (j) Write down two advantages of star topology.

Group—B

- 2.** Answer any *four* questions each within 100 words : 5×4=20
- (a) Write briefly about IP address and its classifications.
  - (b) What is multiplexing? Differentiate between upward and downward multiplexing.
  - (c) Explain different modes of data transmission.

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- (d) Explain advantages and disadvantages of different layers of OSI model.
- (e) Describe functions of network layer.
- (f) Write down the applications of Internet.

Group—C

- 3.** Answer any *four* questions each within 200 words : 10×4=40
- (a) What is the need for security? Define categories of security service.
  - (b) Explain different characteristics of data communication.
  - (c) What is concurrent execution? How it is different from serial execution?
  - (d) What are the different switching techniques? Discuss in detail.
  - (e) Write down the advantages and disadvantages of LAN, MAN and WAN.
  - (f) Differentiate between TCP and UDP.