12N (FNWT)

[19–HRPGKOW–M1S(N) 20M]

PGDCA 1st Semester (New) Exam., 2019 (W)

FUNDAMENTALS OF NETWORKING AND WEB TECHNOLOGY

[PGCA/ScIT S1–04]

(Theory)

Full Marks : 50

Time : 2 hours

The figures in the margin indicate full marks for the questions

1. Choose the correct option of the following : 1×3=3

(a) Which of the following is not a LAN transmission method?

(i) Unicast

(ii) Multicast

(iii) Broadcast

(iv) Multiple cast

(b) Which of the following is a switching technique?

(i) Frame switching

(ii) Method switching

(iii) Message switching

(iv) Network switching

(c) The maximum data rate of SSTP cable is

(i) 500 Mbps

(ii) 600 Mbps

(iii) 100 Mbps

(iv) 200 Gbps

2. Fill in the blanks : 1×3=3

(a) In _____ communication mode, the data can travel through in only one direction.

(b) Guided media uses _____ for data transmission, whereas in case of unguided media, air is the main transmission medium.

(c) _____ help to create links between various Web pages.

3. Answer the following questions : 1×4=4

(a) Write three advantages of optical fiber cable.

(b) What are dynamic and active Web pages?

(c) Mention the main uses of bridges and gateways in networking.

(d) Mention the frequency range of infrared signal and microwaves.

4. Answer any *five* of the following questions : 2×5=10

(a) Define computer network.

(b) Mention the role of repeaters in a network.

(c) What are the goals of network topologies?

(d) Define the terms Web site, Web page, Web server and URL with suitable examples.

(e) What is an IFrame in HTML?

(f) Define form object in JavaScript. How do you create it?

5. Answer any *four* of the following questions : 3×4=12

(a) What is ethernet? Distinguish between peer-to-peer LAN and client-server LAN. 1+2=3

(b) List the relative advantages and disadvantages of bus and ring topologies. 1½+1½=3

(c) Why is switching required? Explain the concept of message switching. 1+2=3

(d) Describe how the Web browser communicates with the Web server. 3

(e) Write the HTML code to add colour to a particular table cell. 3

(Continued)

6. Answer any *three* of the following questions : 6×3=18

(a) Describe the different types of communication modes. Give some applications where simplex communication is used. 2+4=6

(b) Describe the functions of various layers of the TCP/IP model. 6

(c) Write short notes on the following : 3+3=6

(i) Dial-up connections

(ii) Uniform resource locator

(d) Write a function to reverse the digits of a number using JavaScript (Example 267, in reverse 762). 6

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