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UG/3rd Sem/CMS/(H)/T/19

2019

B.Sc.

3rd Semester Examination

COMPUTER SCIENCE (HONOURS)

Paper - C 7-T

Computer Network

Full Marks : 40

Time : 2 Hours

The question are of equal value for any group/half. The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as parctiable. Illustrate the answers wherever necessary.

Group - A

1. Answer any five questions :

5×2=10

- a) What do you mean by transmission impairments ?
- b) Define 'burst error' with an example.
- c) Why gateways are used in a network ?
- d) What do you mean by piggybacking ?
- e) What is the use of TELNET service ?

(2)

- f) Find the network address of the node with IP address : 198.19.2.5 2
- g) Distinguish between serial and parallel transmission. 2
- h) If 17 devices are arranged in a mesh topology then how many cables are needed? How many ports are needed for each device? 2

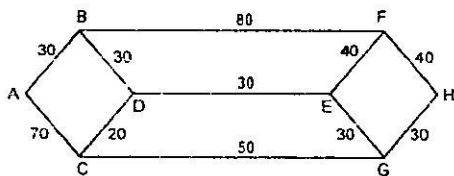
Group - B

2. Answer any *four* questions : 4×5=20

- i) Distinguish between byte stuffing and bit stuffing. What is advantage of character stuffing? 3+2
- ii) With a suitable example, explain the concept of amplitude shift keying (ASK) technique. 5
- iii) Differentiate between connection oriented and connection less services. 5
- iv) Explain leaky bucket algorithm for congestion control 5.
- v) Describe any one random access protocol to share a common link 5

(3)

vi) Consider the following subnet :



Using shortest path routing algorithm find the minimum cost path from A to H. 5

Group - C

3. Answer any *one* questions : $1 \times 10 = 10$

(i) Write an overview of WWW and http protocol. What does 10Base-T mean? What is a private IP address?

ii) Write short notes (any four) $4 \times 2\frac{1}{2} = 10$

- a) DNS
 - b) Ethernet
 - c) CRC
 - d) www
 - e) Co-axial cable
 - f) FDM
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