FTS

Roll No. .....

E- 42

NETWORK TECHNOLOGIES AND MANAGEMENT

2K7-DS-02

Time : 3 hrs. M.M.: 100

Note :—

1. Part 'A' may be attempted in first 6 pages of Answer Sheet.
   भाग 'क ' के सभी उत्तर, उत्तर–पुस्तिका के प्रथम छः पृष्ठों में ही करने हैं।
2. Part 'B' in rest of the Sheets of Answer Sheet.
   भाग 'ख 'के उत्तर, उत्तर–पुस्तिका के अगले शेष पृष्ठों में लिखिये।
3. Answers may be given in English or Hindi.
   प्रश्नों के उत्तर अंग्रेजी अथवा हिन्दी में दीजिये।

PART - 'A'

1. Attempt any ten questions : - (10x2=20)

(a) WAN stands for .....

(b) What is Internet Service Provider (ISP)?

(c) What are the different network connecting devices?

(d) Why it is necessary to have layering in a network?

(e) Number of links to connect n nodes in a mesh topology is = ...

(f) Why star topology is commonly preferred?

(g) Is there any relationship between transmission media and toplolgy?

(h) What are the major advantages of STP over UTP?

(i) ROM stands for .....

(j) Explain the difference between primary memory and secondary memory.

(k) Name the different aspects of computer security.

(l) How the media help in storing data in a computer system?

(m) Explain the difference btween network and distributed system.

(n) Define network topology.

2. Attempt any five questions : (5x4=20)

(a) Define network. Give its advantages.

(b) Define hub. Explain the different types of hub.

(c) How is bridge different form a repeater? What are the advantages and disadvantages of each?

(d) Explain in brief why compression is needed in storage media.

(e) What do you mean by entropy reduction?

(f) How linking is done to remote office?

(g) A DMS X has five symbols x1, x2, x3, x4 and x5 with p(x1)=0.4, p(x2)=0.15, p(x3)=0.2, p(x4)=0.03 and p(x5)=0.19. Construct a Huffman code for X and calculate the efficiency of the code.

(h) Explain the role of data link layer in the network.

PART- B

(3x20=60)

Attempt any three questions.

3. (a) Compare and contrast message switching, circuit switching and packet switching.
   (b) Explain various types of memories in detail.

4. (a) What do you mean by network topology? Explain them in detail.
   (b) What is data encipherment? Explain it with a suitable example.

5. (a) Explain the various aspects of security in network management.
   (b) Explain distributed Operating System in detail.

6. (a) Explain the switching techniques used in computer mangement.
   (b) Write a short note on distributed databases.

7. Write a short note on (any two):
   (a) Workload management in computer network.
   (b) Entropy reduction.
   (c) Ziv-lemple coding.
   (d) Huffman coding.