

Time: 3 hrs

Total Marks: 100

- N.B.**
- 1) All questions are compulsory.
  - 2) Figure to the right indicate marks.
  - 3) Draw neat diagrams wherever necessary.
  - 4) Mixing of sub-questions is not allowed.

Q.1. Attempt any four.

20 M

- a. Distinguish between Internet and Intranet.
- b. Explain CRC method of Error detection.
- c. Write a note on FTP.
- d. What are the functions of network layer?
- e. Explain Cryptographic attacks.
- f. Write a note on TCP SYN DOS Attack.

Q.2. Attempt any four.

20 M

- a. Write a short note on TCP/IP reference model.
- b. Explain digital to analog conversion.
- c. Explain Nyquist theorem.
- d. Briefly describe the PCM technique.
- e. Explain TDM.
- f. List the advantages and disadvantages of fibre optics.

Q.3. Attempt any four.

20 M

- a. What is hamming code of Error correction? How it calculate the redundancy?
- b. How is the check sum method of error detection take place?
- c. What are the drawbacks of stop and wait protocol?
- d. How does token passing protocol prevents data collision?
- e. Write a note on source Routing protocol.
- f. List the various wired Ethernet standards.

Q.4. Attempt any four.

20 M

- a. Distinguish between IPv4 and IPv6.
- b. Explain Interior and Exterior Routing.
- c. Distinguish between UDP and TCP.
- d. Explain Sliding window flow control protocol.
- e. Explain the name resolution process in DNS.
- f. How http is similar to SMTP?

Q.5. Attempt any four.

20 M

- a. What are the goals of network security? Write a note on non-cryptanalytic attack.
- b. Explain the asymmetric key cryptography process.
- c. Describe the architecture of SSL.
- d. What are the services provided by IPSec ?
- e. Name three types of messages in PGP and explain its purpose.
- f. What is computer virus? List their types.

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