

P. Pages : 2

Time : Three Hours



\* 2 3 4 7 \*

**GUG/S/25/13937**

Max. Marks : 80

- Notes :
1. All questions are compulsory.
  2. All questions carry equal marks.
  3. Due credit will be given to neatness and adequate dimensions.
  4. Assume suitable data wherever necessary.
  5. Diagrams and Chemical equation should be given wherever necessary.
  6. Illustrate your answers wherever necessary with the help of neat sketches.

- 1.** a) Describe the concept of Domain Name System (DNS) in details. **8**  
b) With the help of suitable diagram explain TCP/IP reference model. **8**

**OR**

- 2.** a) Discuss about Electronic mail (E-mail) and SMTP protocol in details **8**  
b) List the types of computer network and explain. **8**  
**3.** a) What is switching? Explain packet switching briefly. **8**  
b) Discuss about three generation of packet switches. **8**

**OR**

- 4.** a) Discuss the concept of Time Division Switching with its type. **8**  
b) Write a short note on  
i) Generic Switch  
ii) Multicasting  
**5.** a) Write a short note on Remote Procedure Call (RPC). **8**  
b) Compare TCP and UDP protocol. **8**

**OR**

- 6.** a) Discuss the concept Transmission Control Protocol (TCP) in details. **8**  
b) Write a short note on  
i) Connection-oriented Transport service  
ii) Connectionless Transport Services

- 7.** a) Discuss about issues in Resource Allocation. **8**  
b) Compare Virtual Circuit and Datagram Network. **8**

**OR**

- 8.** a) Write a short note on congestion avoidance mechanism. **8**  
b) What is Quality of Service. Explain in details. **8**
- 9.** a) Describe Adaptive routing algorithm. Explain types of Adaptive routing algorithm. **8**  
b) Write a short note on **8**  
i) LAN  
ii) Ethernet

**OR**

- 10.** a) What are CSMA protocols? Explain its type. **8**  
b) What is routing? Explain Broadcast and Multicast routing. **8**

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