



network. Discuss with example.

- b) Differentiate between Connection oriented and Connectionless services. **07**

**Q-3 Attempt all questions**

- a) Explain CSMA/CD protocol in detail. **07**  
b) Write short note on DNS. **07**

**Q-4 Attempt all questions**

- a) What is network topology? Explain different types of network topology. **07**  
b) Explain CRC code generation with example. **07**

**Q-5 Attempt all questions**

- a) Explain TCP segment structure and justify the importance of its field values. **07**  
b) Draw the layered architecture of OSI reference model and write the at least two services provided by each layer of the model. **07**

**Q-6 Attempt all questions**

- a) Discuss transport layer multiplexing and demultiplexing concepts. **07**  
b) Explain functionality of Bridge, Hub, Switch, Router, and Gateway. **07**

**Q-7 Attempt all questions**

- a) What do you mean by congestion and overflow? Explain the slow-start component of the TCP congestion-control algorithm. **07**  
b) Explain IPv4 datagram format and importance of each field. **07**

**Q-8 Attempt all questions**

- a) Explain Distance Vector routing with example. **07**  
b) Explain layered architecture of TCP/IP model and write service provided by at least two layer of the model. **07**

