

# Dronacharya Group of Institutions

## Question Bank

### Data Communication Networks (EEEC-702)

- Q1 Discuss various performance parameters of data communication Networks?
- Q2.Differentiate between Circuit Switching and Packet Switching?
- Q3.What is line coding technique? Explain and compare performance of different line coding techniques?
- Q4. Classify data communication networks by scales?
- Q5. What are various IEEE standards used for Networking?
- Q6. Explain IEEE standard 802 for LAN?
- Q7.What are broadcast networks? Explain the working advantages and disadvantages of slotted ALOHA?
- Q8. What do you understand by error control network architecture? Also describe the elements of flow control?
- Q9. Explain working of point to point Protocol?
- Q10. What is Fixed Routing? What are advantages and disadvantages of adaptive routing?
- Q11. Which protocol is used to transport Internet messages? With relevant example explain the working of virtual circuit network?
- Q12. What do you understand by framing? Explain in detail?
- Q13. What are the major problems in allocating the channel?
- Q14. How do we say collision detection in analog process? Why do we prefer CSMA and ALOHA?
- Q15. Discuss the function of Bridge, routers and gateways?

Q16. What do you understand by address resolution? Determine the contents of the first byte of an IP header if the IP protocol is IPV4 and header has eight bytes of option?

Q17. Explain infrastructure of Internet in detail? Compare TCP/IP and OSI reference model?

Q18. What do you understand by Multiplexing? Explain use of Multiplexing in the context of a transport protocol?

Q19. What is the use of Bit stuffing in data? Explain features of pipelining with suitable diagrams?

Q20. What are the main characteristics of DNS? Explain the functions of HTTP?

Q21. What do you understand by ATM/?Explain cell header format in ATM and briefly describe the four service classes of ATM?

Q22. What is cryptography? Differentiate between symmetric key cryptography and asymmetric key cryptography?

Q23.What are the advantages of a multipoint connection over a point-to-point connection?

Q24.What are the two types of line configuration?

Q25.What is the difference between half-duplex and full-duplex transmission modes?

Q26.Name the four basic network topologies, and cite an advantage of each type for n devices in a network, what is the number of cable links required for a mesh,ring, bus, and star topology

Q27.What are some of the factors that determine whether a communication system is a LAN or WAN?

Q28.Why are protocols and standards needed?