G518OCN19 Maximum Marks: 75

Duration: 2:30 Hrs

Note **1. All questions are compulsory.**
2. Draw neat labeled diagrams wherever necessary.

Q.1. Answer the following questions (Answer any three). **(15)**

a. Write a note of OSI model.
b. Write a note on random access.
c. Explain classful addressing in detail.
d. Explain RIP protocol in detail.
e. Explain different modes of communication.
f. Explain concept of Multiplexing.

Q.2. Attempt any three of the following. **(15)**

a. Explain basic Communication model with block diagram.
b. Discuss different transmission media in networking.
c. Explain Transport Layer services in detail.
d. show unipolar NRZ and Polar NRZ encoding pattern '10110100101'
e. Explain the process of Amplitude shift keying with example.
f. Write difference between Router and switch.

Q.3. Attempt any three of the following. **(15)**

a. Draw and explain model of spread spectrum in communication.
b. Explain the concept of sliding window.
c. Explain services of Data Link Layer.
d. Explain switching concept in detail.
e. Explain Bluetooth Architecture with diagram.
f. Explain error detection and correction in data link layer.

Q.4. Attempt any three of the following. **(15)**

a. What is Shannon capacity of noisy channel.
b. What are the different types of transmission impairments.
c. Distinguish between data rate and signal rate.
d. How does a single-bit error differ from a burst error.
e. Explain working of stop -and -wait protocol.
f. Explain from IPv4 to IPv6 transition.

Q.5. Attempt any three of the following. **(15)**

a. Explain TCP Model in detail
b. Write a note on Domain Name System.
c. Digital-To-Digital transmission with example.
d. Describe Routing protocols in detail.
e. Write a note on ICMPv6 Packet.
f. IPv4 Packet format with diagram.

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