

Q.P. Code: 13461

(Time Duration: 3hrs)

(Marks: 80)

1. Question No 1 is compulsory.
2. Attempt any three out of the remaining five questions.

- Q1. (a) How can a network effectively and fairly allocate its resources? 05
(b) Explain the concept of additive increase mechanism of TCP 05
(b) Define scalability, availability and reliability 05
(d) What is hidden terminal and exposed terminal problem? 05
- Q2. (a) Discuss best practices of campus area network design. 10
(b) Explain the phases of the PPDIOO network life cycle. 10
- Q3. (a) Compare the different IPv4 routing protocols 10
(b) Explain multicast, unicast and anycast addresses in IPV6. 10
- Q4. (a) What are the objectives of an effective WAN design? Describe the different WAN Link Categories and their characteristics. 10
(b) What are the disadvantages of the binary exponential back off mechanism used in MACA? How are they overcome in MACAW? 10
- Q5. (a) Explain dynamic source routing (DSR) protocol in detail along with its advantages and disadvantages. 10
(b) Explain the role of DR and BDR in OSPF. How are the DR and BDR elected? 10
- Q6. Write short notes on: (any two): 20
- i) WAN transport technologies
 - ii) TCP congestion control mechanisms
 - iii) WLAN design
 - iv) Software Defined Networking.
