

Duration: 3hrs

[Max Marks:80]

- N.B. :** (1) Question No 1 is Compulsory.  
(2) Attempt any three questions out of the remaining five.  
(3) All questions carry equal marks.  
(4) Assume suitable data, if required and state it clearly.

- 1 Attempt any FOUR [20]
- a Write a short note on packet filtering.
  - b Differentiate between CSMA/CD and CSMA/CA.
  - c Write a short note on BGP.
  - d Write a short note on SONET layers.
  - e Explain IPTABLES in brief.
- 2 a Explain ATM cell format. Also describe the different functional layers of ATM [10]  
and bring out the significance of AAL layer.
- b Why firewall is required in network security? Discuss any two types of firewalls. [10]  
Discuss the limitations of firewall.
- 3 a Explain ubiquitous and hierarchical access in access network design. Compare [10]  
ubiquitous and hierarchical access.
- b Explain Demilitarized zone (DMZ) in detail. [10]
- 4 a Explain RIP in detail. Compare RIP and OSPF. [10]
- b Explain hardware components of SONET architecture. Draw the frame format of [10]  
STS-1.
- 5 a What is the need for DWDM? Explain the technology with a neat schematic [10]  
diagram, also list the system components.
- b What is need of compression? Explain different compression techniques in [10]  
detail.
- 6 a Write a short note on H.323. [10]
- b Write a note on Network design layers. [10]

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