

**Duration: 3 hrs**

**[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 Explain function of different layer used in TCP/IP [5]
    - b Explain the need of audio or video compression in multimedia communication. [5]
    - c Differentiate between DNS and MDNS. [5]
    - d Explain working of IPTV? [5]
    - e Explain IoT and it's uses in internet communication [5]
  
  - 2
    - a Describe each field of SSH packet format with the help of diagram [10]
    - b Explain HTTP and its transaction messages? [10]
  
  - 3
    - a What is RTCP? Explain it's working and different messages used in RTCP [10]
    - b State and explain the Integrated Service model used for QoS [10]
  
  - 4
    - a Explain packet filter firewall and Proxy based firewall. [10]
    - b Explain the protocol used to create a secure email messages. [10]
  
  - 5
    - a What is the OpenFlow protocol? Explain SDN architecture(10M) [10]
    - b Explain MPEG for video compression in detail with reference to JPEG compression [10]
  
  - 6 Write a note on **(any two)** [10]
    - a) SSL/TSL protocol for transport layer security (10M)
    - b) H.261 and H.263 (10M)
    - c) VPN (10M)
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