

Time: 3Hours

[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 What do you mean by protocol hierarchies? Explain Briefly. [05]
 - b Explain packet dropping techniques in differentiated services (QoS). [05]
 - c What do you mean by IDS? [05]
 - d Explain text and image compression. [05]
 - e Define IoT. List its characteristics. [05]
- 2**
- a How is address resolution achieved in DNS? How address resolution differs from recursive resolution in DNS? [10]
 - b What are Internet services? Give examples and highlight the applications. [10]
- 3**
- a Highlight the main differences between OSI and TCP/IP architecture. [10]
 - b Explain RSVP and its role in QoS. [10]
- 4**
- a Explain the process of sending an email. [10]
 - b Explain the impact of Network Automation in the Software defined network. [10]
- 5**
- a Explain the importance of Application Layer Security. [10]
 - b Compare IntServ and DiffServ. [10]
- 6**
- a Explain multimedia information representation and compression techniques. [10]
 - b Describe the physical design of IoT systems. [10]