

(Time: 2 ½ Hours)

(Total Marks: 75)

N.B:

1. All questions are compulsory.
2. Figures to the right indicate marks.
3. Illustration, in-depth answers, and diagrams will be appreciated.
4. Mixing of sub-questions is not allowed.
5. Each question carries 5 marks.

- 1 Attempt any Three of the following: 15**
- a What are the Differences between Internet and Intranet?
 - b What is meant by a handshaking protocol?
 - c Why is it said that FTP sends control information “out-of-band”?
 - d Explain the Protocol layer and their services?
 - e Explain Non-Persistent and Persistent Connections in detail.
 - f Give an overview of how DNS works.
- 2 Attempt any Three of the following: 15**
- a Explain the need for Virtualization in detail.
 - b Write a short note on Network Virtualization.
 - c Explain FIBs and RIBs.
 - d Write a short note on virtual firewall.
 - e Write a short note on Routing Information Protocol.
 - f Write a short note on interior gateway protocol.
- 3 Attempt any Three of the following: 15**
- a Write a short note on MANET.
 - b State and explain 4 types of routing in ad hoc network.
 - c Explain Topology based and routing based protocols.
 - d Explain GOAFR and GOAFR+.
 - e What is Geocasting.
 - f Write a short note on hiperLAN.
- 4 Attempt any Three of the following: 15**
- a Explain protocol stack model.
 - b What are the factors to consider while designing the sensor network.
 - c What are the challenges while designing WSN.
 - d What are Anchor free and Anchor based mechanisms.
 - e Write a short note on clustering of sensor networks.
 - f Explain RFID as a passive sensor.
- 5 Attempt any Three of the following: 15**
- a Differentiate HTTP and SMTP.
 - b Write a short note on protocol layer in detail.
 - c State and explain various types of routing protocols.
 - d Write a short note on link State routing protocol.
 - e State and explain various advantages of WLAN.
 - f Write a short note on Localisation.
