

(2½ Hours)

[Total Marks: 60]

N. B.:

- (1) All questions are compulsory.
- (2) Make suitable assumptions wherever necessary and state the assumptions made.
- (3) Answers to the same question must be written together.
- (4) Numbers to the right indicate marks.
- (5) Draw neat labelled diagrams wherever necessary.
- (6) Use of Non-programmable calculators is allowed.

- Q. 1 Attempt two of the following. 12**
- a. What is choke packet? How is it used for congestion control?
 - b. What is congestion? Why does it occur?
 - c. What is Quality of Service (QoS)? How many classes does quality of service policy support?
 - d. Define Ethernet, Ethernet data rate and explain Wi-Fi Data rates 4G/5G Cellular fifth Generation.
- Q. 2 Attempt two of the following. 12**
- a. Write a note on Wireless information-centric networking CCN.
 - b. Explain Southbound interface routing in detail.
 - c. Explain the different types of Standards-Developing Organizations for developing the Software-Defined Networking.
 - d. State the SDN Data Plane in the SDN Architecture.
- Q. 3 Attempt two of the following. 12**
- a. Write a short note on SND controller.
 - b. Discuss the different types of functions performed by the data plane network devices.
 - c. List and discuss the characteristics of software defined networking.
 - d. What is virtual network function? Explain the concept of NFV.
- Q. 4 Attempt two of the following. 12**
- a. List and discuss factors influencing QoE.
 - b. Draw diagram of QoE/QoS Layered Model with the Domains of Interest for the frameworks.
 - c. Differentiate between QoE Versus QoS Service Monitoring.
 - d. What are QoS/QoE Mapping Model? Describe Black Box Media based QoS/QoE Mapping model.
- Q. 5 Attempt two of the following. 12**
- a. Compare and contrast the ITU-T and IoT World Forum IoT reference models.
 - b. Write a short note on:
 - i. Sensors
 - ii. RFID
 - c. Define Software defined security describe NFV Security.
 - d. Compare the various cloud deployment models in terms of their strengths and weaknesses.
