

[Time:2.30 Hrs]

[Marks:60]

Please check whether you have got the right question paper.

N.B: (1) All questions are compulsory.

(2) Figures to the right indicate full marks.

(3) Assume additional data if necessary but state the same clearly.

(4) Symbols have their usual meanings and tables have their usual standard design unless stated otherwise.

(5) Use of calculators and statistical tables are allowed. / If required, keep it.

Q.1 Attempt any two of the following **12**

- Why are different inter-AS and intra-AS protocols used in the Internet?
- What mechanism is used in TCP Congestion Control.
- Draw and describe DNS message frame format.
- Draw and describe HTTP Message format & HTTP Response Message.

Q.2 Attempt any two of the following **12**

- Illustrate and Explain the need of the virtualization.
- Explain Routing Protocols with their types.
- How Multi-Topology Routing (MTR) is working with two distinct functions
- Justify VRF on Switch Connected to Firewall Contexts Across VLANs

Q.3 Attempt any two of the following **12**

- Justify working of Adhoc network working with access point (AP)
- Describe WLAN with their advantages and disadvantages.
- Explain Architecture of Bluetooth with the help of diagram.
- Justify In multicasting routing, the data are transmitted from one source to multiple destinations.

Q.4 Attempt any two of the following **12**

- Which are the factors affect while designing the sensor network.
- Explain Clustering of SNs in WSN with the help of diagram.
- What do you mean by localization?
- Explain Protocol stack of Sensor Network with the help of diagram.

Q.5 Attempt any two of the following **12**

- Explain Difference TCP & UDP.
- Write a short note on Home RF Technology
- How does BGP use the NEXT-HOP attribute? How does it use the AS-PATH attribute?
- Explain RFID as a passive sensor