April 2018

<u>Time - Three hours</u>
(Maximum Marks: 75)

[N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory.
Answer any FOUR questions from the remaining in each PART - A
and PART - B

(2) Answer division (a) or division (b) of each question in PART - C.

(3) Each question carries 2 marks in PART – A, 3 marks in Part – B and
10 marks in PART – C.]

PART – A

1. Define data communication. List the components of data communication system.

2. What is VSAT?

3. What are the standards of data communication system?

4. Define socket.

5. Define supernetting.

6. Define digital signature.

7. What is a spam?

8. What is authentication?

PART – B

9. Give a brief note on the features and concepts of switches.

10. What is gigabit Ethernet?

11. Explain the services of ISDN.

12. Draw a diagram to compare OSI model and TCP/IP model.

13. Write short notes on passive and active attacks.

14. What is Kerberos?

15. Mention the limitations of firewall.

16. Define WEP and write its features.

[Turn over.....

PART – C

17. (a) Classify the different types of networks based on geographical distance and briefly explain.

(Or)

(b) (i) With a neat diagram explain star topology stating its advantages and disadvantages.
(ii) Briefly explain the structure of a coaxial cable with neat diagram.

18. (a) Compare the protocols 802.3, 802.4 and 802.5.

(Or)

(b) (i) Draw the frame format of FDDI and explain.
(ii) Define switching. Explain any two types of network switching in detail.

19. (a) (i) With a neat diagram explain the functions of transport layer protocol.
(ii) Write short notes on: (1)IGMP (2)ICMP.

(Or)

(b) (i) Explain connection oriented and connectionless services.
(ii) Explain the following application layer protocols:
(1) FTP (2) POP

20. (a) Explain AES algorithm in detail.

(Or)

(b) (i) Draw the IP security protocol structure and explain its architecture.
(ii) Write short notes on digest function.

21. (a) Define RAID. Briefly explain about the different RAID levels with neat diagrams.

(Or)

(b) (i) What is a firewall? Explain any two types of firewall.
(ii) How are intruders classified? Explain in detail.