K22U 0099

Reg. No. : .....

Name : .....

VI Semester B.Sc. Degree (CBCSS – Supple./Improv.) Examination, April 2022
(2016 – 2018 Admissions)
CORE COURSE IN COMPUTER SCIENCE
6B14CSC : Data Communication and Networks

Time : 3 Hours Max. Marks : 40

SECTION – A

1. **One** word answer : **(8×0.5=4)**
   a) Which layer takes care of Segmentation and reassembly ?
   b) What is the data rate of improved CAT 2 cable used in LANs ?
   c) Expand MPLS.
   d) When the offered load increases beyond the capacity, the situation is called
   e) Links and routers that are regularly heavily utilized are upgraded at the earliest opportunity is called
   f) Expand TPDU.
   g) The coding of data for security is called
   h) The output of the encryption process is called

SECTION – B

Write short notes on **any seven** of the following questions : **(7×2=14)**

2. Compare analog and digital transmission.
3. What is network virtual terminal ?
4. Which are the principles that were applied to arrive at the seven layers ?
5. State optimality principle.
6. What is the need of error control ?

P.T.O.

7. What is traffic-aware routing ?
8. What is parallel transmission ?
9. What is character stuffing ?
10. What is Kerckhoff's principle ?
11. What is cryptography ?

SECTION – C

Write short notes on **any four** of the following questions : **(4×3=12)**

12. Discuss fundamental characteristics of data communication.
13. Discuss the propagation modes of fiber optic cable.
14. Compare leaky and token bucket algorithms.
15. Discuss the methods used for restricting Packet lifetime to a known maximum.
16. Differentiate Unicast, multicast and broadcast.
17. What are the advantages of Fiber Optic Cables ?

SECTION – D

Write short notes on **any two** of the following questions : **(2×5=10)**

18. What is framing ? Explain any two methods used.
19. Discuss hierarchical routing algorithm.
20. Explain TCP service model.
21. Discuss RSA algorithm.
