Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 18

B.Tech.(CSE)/(IT) (Sem.–4)

COMPUTER NETWORKS-I

Subject Code : BTCS-403

M.Code : 56606

Date of Examination : 05-07-22

Time : 3 Hrs. Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt ANY FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt ANY TWO questions.**

SECTION-A

Answer briefly :

1. What are the goals of a computer network?
2. Define Bandwidth.
3. List design issues of data link layer.
4. Compare pure and slotted ALOHA protocols.
5. What are the IP class and number of sub networks if subnet mask is 255.224.0.0?
6. What are the different addresses used in the different layers of TCP/IP data communication model?
7. What is Domain Name System?
8. List the applications of coaxial cables.
9. What is a common concept used in all the error detection methods?
10. A signal travels from a point A to point B. At point A, the signal power is 100W. At point B, the power is 90 W. What is the attenuation in decibels?

SECTION-B

11. Write down the differences between OSI and TCP/IP reference models.

12. What are the different types of wireless transmission techniques? In which frequency ranges of electromagnetic spectrum, these techniques operate?

13. With the help of diagram explain why window size should be $< 2^m$ (where m is the size of sequence number field in bits) in Go-Back-N ARQ?

14. Write a detailed note on static and dynamic channel allocation.

15. Define and compare TCP and UDP protocols.

SECTION-C

16. Compare and contrast different types of guided transmission media used in computer networks.

17. Differentiate Circuit Switching, Packet Switching and Message switching.

18. Explain the Distance Vector Routing Algorithm with an example.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.