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Question Paper Code: U4202

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Fourth Semester

Computer science and Engineering

21UCS402 COMPUTER NETWORKS

(Common to CSD & Information technology)

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer All Questions

PART A - (5 x 1 = 5Marks)

1. Which layer is responsible for source to destination delivery of packets across the multiple network links to the physical or logical arrangement of a network? CO1-U
(a) Transport (b) Network (c) Session (d) Data link
2. In Go-Back-N ARQ, if 5 is the number of bits for the sequence number, then the maximum size of the receive window must be _____. CO1-U
(a) 1 (b) 15 (c) 16 (d) 31
3. Transmission from Earth to satellite is called the CO1-U
(a) Up-link (b) Down-link (c) Low-link (d) High-link
4. In the IPv4 addressing format, the number of networks allowed under Class C addresses is CO1-U
(a) 2^{14} (b) 2^7 (c) 2^{21} (d) 2^{24}
5. This is not an application layer protocol CO1-U
(a) HTTP (b) SMTP (c) FTP (d) TCP

PART – B (5 x 3= 15 Marks)

6. Define the terms: Bandwidth and Latency. CO1-U
7. What is piggy backing? CO1-U
8. What is meant by hop count? CO1-U
9. Give the difference between UDP and TCP CO1-U

10. What is the purpose of Domain Name System? CO1-U

PART – C (5 x 16= 80 Marks)

11. (a) Draw neat sketch of OSI reference model and list out various functions of the Layers. CO1-U (16)

Or

(b) Discuss the various transmission media that are employed in a network. CO1-U (16)

12. (a) Write short notes on CSMA/CD with proper diagram. CO1-U (16)

Or

(b) Explain the various services in IEEE 802.11 Wireless WAN Technologies CO1-U (16)

13. (a) Explain in detail about ARP and RARP CO1-U (16)

Or

(b) Write short notes on address mapping protocol. CO1-U (16)

14. (a) Discuss in detail TCP Header Format, connection establishment and data transmission with the help of suitable diagram. CO1-U (16)

Or

(b) What is QoS in internetworking? State the techniques to improve QoS. CO1-U (16)

15. (a) Explain the concept of TELNET in detail. CO1-U (16)

Or

(b) Explain the concept of firewall in detail CO1-U (16)