

20/3/24 ATUT

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DURATION: - 2 1/2 hrs

SUIT - 733061123 - Computer (03)
Networks

MARKS:- 75

Note: - (1) All questions are compulsory.

(2) All questions carry equal marks.

(3) Figures to the right indicates full marks

Q.1 Attempt any three of the following 15M

- a) Explain star and Bus topology CO1-(U)
- b) Write short note on MAN, WAN and LAN CO1-(U)
- c) Difference between TCP and OSI layer CO1-(R)
- d) Write short note on Layers of OSI model CO1-(R)
- e) Explain the hardware device of network CO1-(R)
- f) Describe the communication done between the sender and receiver CO1-(U)

Q.2 Attempt Any three of the following 15M

- a) Describe analog and digital signal CO2 (R)
- b) Explain transmission impairments CO2 (R)
- c) Write the steps to compute CRC code The original message is 110101011 and the generator polynomial $= x^4 + x$ write the transmitted frame CO2 (U)
- d) The original Data 0010101, 0101010, 1111101, check and block parity check CO2 (U)
- e) Explain the position and function of data link layer CO2 (R)
- f) Write a short note on AQR technique CO2 (U)

Q.3 Attempt Any Three of the following 15M

- a) Define IGMP, ICMP, IP, ARP and RARP CO3 (R)
- b) Describe the format of IPv4 header CO3 (R)
- c) Explain IP addressing classful and classless CO3 (R)
- d) Explain fragmentation CO3 (R)
- e) Given Address: 192.168.109.50/27 and 192.168.10.6/15. Find the first Address, last address and Total Number of Host address CO3 (U)

- f) How to find subnet mask, first address, last address and network, host bits. Write the steps with respect to formulas CO3 (U)

Q.4 Attempt Any Three of the following 15M

- a) Where is network and transport layer located? Explain the duties of transport layer CO4 (R)

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| b) Explain multiplexing and the demultiplexing | CO4 (R) |
| c) Define simple, stop and wait, Go back N | CO4 (R) |
| d) Describe user datagram format | CO4 (R) |
| e) Explain selective repeat and by directional protocol | CO4 (R) |
| l) Write a short note on UDP | CO4 (R) |
| 2.5 Attempt Any Three of the following | 15M |
| a) Write a short note on uniform resource locator | CO5 (R) |
| b) Explain DNS and it's working | CO5 (R) |
| c) Explain application layer paradigms | CO5 (R) |
| d) Describe message access agent | CO5 (R) |
| e) Define name space, flate name space, And hierarchical name space | CO5 (R) |
| f) Draw neat labelled diagram of email architecture and explain in details | CO5 (R) |
