

Roll No.

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B. Tech. (Sem. – 6th)
ADVANCED INTERNET TECHNOLOGIES
SUBJECT CODE: IT - 302
Paper ID: [A0519]

Time: 03 Hours**Maximum Marks : 60****Instruction to Candidates:**

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

Section - A**(10 × 2 = 20)****Q1)**

- a) In case a frame doesn't get received, how does the source get to know?
- b) What is a subnet mask used for?
- c) How is Rlogin used for management of servers?
- d) What is use of Reverse ARP?
- e) What is the use of flags in a TCP header?
- f) What are the various ICMP messages?
- g) What is tracert used for?
- h) What is rlogin used for?
- i) What is the main purpose of application layer?
- j) How does a source machine know that a TCP packet needs retransmission?

Section - B**(4 × 5 = 20)**

- Q2)** What is the purpose of proxy server? How does it work?
- Q3)** In case an institution has 5000 computers in a LAN, which IP addressing scheme should be used.
- Q4)** In a Datalink layer, a head and trailer both are present. Give the reason.
- Q5)** Explain the process in case a yahoo email server has to push an email to gmail server.
- Q6)** Whenever a computer is switched on in a LAN, how and why does it execute ARP?

Section - C**(2 × 10 = 20)**

- Q7)** What is use of DNS? In case you do not have an access to any DNS server, is it still possible to browse certain website. Explain clearly with appropriate illustrations.
- Q8)** State the IP routing principles? How to routers maintain and update the route to no. of destinations?
- Q9)** In case a subnet mask : 255.255.255.0 is used in a LAN, how many bits are used as network address, and in host address? What are the maximum numbers of hosts that can be accommodated in such a case?

