Roll No. ....

Total No. of Questions : 09]   [Total No. of Pages : 02

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

[Note : Please fill subject code and paper ID on OMR]

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

Q1)   (10 × 2 = 20)

a) In OSI network architecture, the dialogue control and token management are responsibility of which layer?

b) In OSI network architecture, the routing is performed by which layer?

c) Which device performs modulation and demodulation?

d) What is use of Reverse ARP?

e) What is the use of flags in a TCP header?

f) Discuss the digital and analog types of communication.

g) Differentiate between Synchronous and Asynchronous types of Communications.

h) Discuss the mechanism of microwave transmission.

i) List the features of Coaxial Cables.

j) Discuss the concept of message Switching.

J-600   *P.T.O.*

Section - B

(4 × 5 = 20)

Q2) What is the purpose of the checksum used in Internet protocols? Briefly describe how it works.

Q3) Discuss the characteristics of different types of communication channels available for transmission.

Q4) Discuss the working of CSMA/CD protocol in detail.

Q5) Describe the procedure of framing and error control by Data Link Layer.

Q6) What is the main difference between connectionless and connection-oriented protocols? Give an example for each protocol respectively.

Section - C

(2 × 10 = 20)

Q7) Differentiate between the following using an appropriate example :

(a) Transmission delay and propagation delay.

(b) Packet switching and Circuit Switching.

Q8) How do two machines establish connection via TCP? Explain the handshaking process in detail.

Q9) A host in an organization has an IP address 150.32.64.34 and a subnet mask 255.255.240.0. What is the address of this subnet? What is the range of IP addresses that a host can have on this subnet?

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