Roll No.....

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

Paper ID [A0472]

(Please fill this Paper ID in OMR Sheet)

B.Tech. (Sem. - 6th/7th)

ASYNCHRONOUS TRANSFER MODE (CS - 306)

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) What do you understand by header in a frame format.

b) What is the significance of Asynchronous Transfer Mode?

c) What is the requirement of an ATM cable?

d) What is the meaning of asynchronous in the term ATM?

e) ATM is a connection oriented or connectionless technology, explain.

f) What is the importance of NSAP in ATM?

g) Why the packets are of the same length in ATM? What is the advantage?

h) ATM is packet switched or circuit switched technology?

i) How many generic flow control bits are there in ATM payload? What is their function.

j) What is virtual path identifier?

Section - B

(4 × 5 = 20)

Q2) Discuss the design issues for the choice of the payload size in ATM.

Q3) What are management planes? Explain in detail.

Q4) How traffic can be managed in an ATM network.

Q5) What are the necessary components for setting the ATM hardware.

Q6) Compare the different switch models for ATM.

Section - C

(2 × 10 = 20)

Q7) What percentage of an ATM link's total bandwidth is consumed by the ATM cell headers? What percentage of the total bandwidth is consumed by all nonpayload bits in AAL3/4 and AAL5, when the user data is 512 bytes long?

Q8) How reliable does an ATM connection have to be in order to maintain a loss rate of less than one per million for a higher-level PDU of size 20 cells? Assume AAL5.

Q9) Write short notes on the following :

(a) ATM based protocol networking.

(b) Conjunction Control.

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