B. Tech. (Sem. - 6th)
ASYNCHRONOUS TRANSFER MODE
SUBJECT CODE : CS - 306
Paper ID : [A0472]

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

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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)   Why the packets of ATM are of fixed length?

b)   What is the significance of Asynchronous Transfer Mode?

c)   What is the requirement of an ATM cable?

d)   What do you mean by virtual circuit identifier?

e)   What is explicit forward congestion indication?

f)   What is the importance of Header Error Check byte?

g)   What is segmentation and reassembly in ATM?

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 Encapsulation in ATM?

Section - B

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

Q3) What are different types of switch models? Compare them.

Q4) How ATM layer performance is measured?

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

Q6) What is Conjunction Control? Explain.

Section - C

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 System Design.

    (b) Choice of payload size.

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