

**ATM**  
**(CS-306, Dec-2007)**

**Note:** Section A is compulsory. Attempt any four questions from Section-B and any two from Section-C.

**Section-A**

1. a) What is circuit emulation via-ATM?
- b) What does asynchronous mean in the term of ATM?
- c) Write application of virtual channels/path connections.
- d) What are the ATM performance parameters?
- e) Explain service classification of AAL layer.
- f) Illustrate physical medium characteristics of ATM.
- g) Which are the procedures used for traffic control?
- h) Which ATM transfer capabilities make use of RM cells?
- i) How does the next hop resolution protocol works?
- j) Which AAL type is used for the connectionless service?

**Section-B**

2. Distinguish between physical layer transport functions & ATM layer transport functions.
3. What is cell terminology & functions of each layer of ATM?
4. Write about following additional user network interfaces: Private ATM interface, Inverse multiplexing ATM & Frame based Interfaces.
5. Using diagram explain about ATM layer & ATM Adaptation layer.
6. Write about statistical multiplexing used in ATM networks.

**Section-C**

7. What ATM features do the ITU-T signaling capabilities sets support? What additional signaling functions do the ATM forum specifications provide?
8. (a) write all type of switching elements of a switch fabric.  
    (b) Where are the following protocols employed & what are their main functionalities: PNNI, BICI, AINI.
9. Write general aspects of optical networking & ATM in detail using diagrams.