

Code No: 07A71701

**R07**

**Set No. 2**

**IV B.Tech I Semester Examinations, NOVEMBER 2010**  
**ASYNCHRONOUS TRANSFER MODE**  
**Electronics And Telematics**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. What are the different functions of AAL layer and explain them clearly. [16]
2. Write in detail about :
  - (a) Non real time variable bit rate service.
  - (b) Unspecified bit rate service.
  - (c) Average bit rate service . [4+6+6]
3. Discuss ATM implementation issues in detail. [16]
4. Explain ATM application programming Interface. [16]
5. Discuss about SONET's management scheme in detail. [16]
6. Narrate the functions of ATM layer with relevant figures. [16]
7. Classify multistage networks and explain each of them in detail. [16]
8. Explain the advantages and disadvantages of ATM over TCP/IP. [16]

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**Set No. 4**

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**ASYNCHRONOUS TRANSFER MODE**  
**Electronics And Telematics**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. Discuss the merits and demerits of ATM over STM. [16]
2. Discuss the networking techniques of B-ISDN. [16]
3. Explain in detail about self routing switching element and present the generic realization of the self routing switching element with central memory. [16]
4. What is the significance of optical networking? Give the different topologies of optical networking? [16]
5. Explain about the QOS parameters defined by the ATM Forum and sketch the cell transfer delay probability density function. [16]
6. Write short notes on the following:
  - (a) Cell delay variation.
  - (b) AAL composite user. [8+8]
7. How many SONET NETS can be chained together to achieve client-server configuration and how it will be implemented. [16]
8. Discuss in detail telephony over ATM. [16]

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**R07****Set No. 1**

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ASYNCHRONOUS TRANSFER MODE  
Electronics And Telematics

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions  
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1. Compare and contrast passive optical networks using multiplexer/ demultiplexer and splitter/ combiner approaches. Use relevant diagrams. [16]
2. (a) Give the concept behind B-ISDN.  
(b) What are the standards of B-ISDN channels? [8+8]
3. What are the various buffer locations possible within a matrix type switching element and explain each of them in detail. [16]
4. Write in detail about:  
(a) Source Traffic Descriptor.  
(b) Connection Traffic Descriptor. [8+8]
5. Write notes on:  
(a) Security objectives of ATM networks  
(b) Security measures of ATM networks  
(c) Actions to implement good security. [6+6+4]
6. Show the cell header at the B-ISDN NNI and explain each field. [16]
7. What are the overheads of SONET and how long they can be as bytes. [16]
8. What is synchronous residual time stamp method for ATM and discuss the methodology to implement. [16]

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**Set No. 3**

**IV B.Tech I Semester Examinations, NOVEMBER 2010**  
**ASYNCHRONOUS TRANSFER MODE**  
**Electronics And Telematics**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. Explain the characteristics of ATM network equipment. [16]
2. With a neat sketch explain the architecture of SONET. [16]
3. How do you establish a VCC at the B-ISDN UNI. [16]
4. Discuss the functions of AAL5 in detail [16]
5. What are ATM forum specifications for wireless communications? How is wireless network implemented in ATM? [16]
6. Write notes on :
  - (a) Bus type switching element
  - (b) Performance aspects of switching elements . [8+8]
7. (a) Explain why tools developed for congestion control in packet switched and frame relay networks fail are inadequate for ATM networks.  
(b) Write about traffic patterns imposed on networks and transmission characteristics of networks. [8+8]
8. Write about possible implementation scenario for B-ISDN services. [16]

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