

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

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

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
All Questions carry equal marks

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

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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

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 UN1. [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]
