

Code No: RR320401

RR

Set No. 2

III B.Tech II Semester Examinations, December 2010

COMMUNICATION SYSTEMS

Electronics And Communication Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

1. (a) Explain two methods of controlling the gain of a radio receiver.
 (b) Explain briefly about the following:
 Mixer, Choice of IF and Image Frequency. [4+4+4+4]
2. Write about the following:
 (a) Basic rate access.
 (b) Primary rate access. [8+8]
3. (a) Write the functionalities of the following:
 i. Signalling data link
 ii. Signalling link
 iii. Signalling network
 iv. SCCP
 (b) Explain about the methods for deciding the root for a particular connection? [16]
4. Define the following terms:
 (a) Switching matrix
 (b) Switching network
 (c) Symmetric network
 (d) Folded network
 (e) Nonfolded network
 (f) Transit exchange
 (g) Intelligent network
 (h) Control functions [8x2=16]
5. (a) Explain the principle of time slot interchange (TSI) using an example?
 (b) Differentiate between input controlled time division space switch and output controlled time division space switch? [8+8]
6. (a) Write short notes on the following :-
 i. Harmonic generators
 ii. transmitter power supplies

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- (b) Explain with suitable block diagram the various stages of a frequency modulated broadcast transmitter. Draw the block schematic of a crystal controlled frequency modulation broadcast station operating on 96.5MHz. The modulating frequency employed cover the range 60 to 12000 Hz & a maximum deviation of 75 KHz is desired. [4+4+8]
7. (a) Differentiate between point to point and multiple point connections?
(b) Explain about SONET system. [8+8]
8. (a) Discuss the differences between FM and AM receivers. [3]
(b) Draw a block diagram of a superheterodyne FM receiver and explain the functions of each block. [2+5]
(c) Write about fading. [6]

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Set No. 4

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COMMUNICATION SYSTEMS

Electronics And Communication Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

1. (a) Differentiate between point to point and multiple point connections?
(b) Explain about SONET system. [8+8]
2. Write about the following:
(a) Basic rate access.
(b) Primary rate access. [8+8]
3. (a) Explain the principle of time slot interchange (TSI) using an example?
(b) Differentiate between input controlled time division space switch and output controlled time division space switch? [8+8]
4. (a) Discuss the differences between FM and AM receivers. [3]
(b) Draw a block diagram of a superheterodyne FM receiver and explain the functions of each block. [2+5]
(c) Write about fading. [6]
5. (a) Write short notes on the following :-
 - i. Harmonic generators
 - ii. transmitter power supplies
(b) Explain with suitable block diagram the various stages of a frequency modulated broadcast transmitter. Draw the block schematic of a crystal controlled frequency modulation broadcast station operating on 96.5MHz. The modulating frequency employed cover the range 60 to 12000 HZ .& a maximum deviation of 75 KHZ is desired. [4+4+8]
6. Define the following terms:
 - (a) Switching matrix
 - (b) Switching network
 - (c) Symmetric network
 - (d) Folded network
 - (e) Nonfolded network
 - (f) Transit exchange
 - (g) Intelligent network

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(h) Control functions

[8x2=16]

7. (a) Explain two methods of controlling the gain of a radio receiver.

(b) Explain briefly about the following:

Mixer, Choice of IF and Image Frequency.

[4+4+4+4]

8. (a) Write the functionalities of the following:

i. Signalling data link

ii. Signalling link

iii. Signalling network

iv. SCCP

(b) Explain about the methods for deciding the root for a particular connection?

[16]

FIRSTRANKER

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Set No. 1

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COMMUNICATION SYSTEMS

Electronics And Communication Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

1. (a) Differentiate between point to point and multiple point connections?
(b) Explain about SONET system. [8+8]
2. (a) Discuss the differences between FM and AM receivers. [3]
(b) Draw a block diagram of a superheterodyne FM receiver and explain the functions of each block. [2+5]
(c) Write about fading. [6]
3. (a) Write the functionalities of the following:
i. Signalling data link
ii. Signalling link
iii. Signalling network
iv. SCCP
(b) Explain about the methods for deciding the root for a particular connection? [16]
4. (a) Write short notes on the following :-
i. Harmonic generators
ii. transmitter power supplies
(b) Explain with suitable block diagram the various stages of a frequency modulated broadcast transmitter. Draw the block schematic of a crystal controlled frequency modulation broadcast station operating on 96.5MHz. The modulating frequency employed cover the range 60 to 12000 HZ .& a maximum deviation of 75 KHZ is desired. [4+4+8]
5. (a) Explain two methods of controlling the gain of a radio receiver.
(b) Explain briefly about the following:
Mixer, Choice of IF and Image Frequency. [4+4+4+4]
6. (a) Explain the principle of time slot interchange (TSI) using an example?
(b) Differentiate between input controlled time division space switch and output controlled time division space switch? [8+8]
7. Define the following terms:
(a) Switching matrix

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- (b) Switching network
- (c) Symmetric network
- (d) Folded network
- (e) Nonfolded network
- (f) Transit exchange
- (g) Intelligent network
- (h) Control functions

[8x2=16]

8. Write about the following:

- (a) Basic rate access.
- (b) Primary rate access.

[8+8]

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Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Write about the following:

(a) Basic rate access.

(b) Primary rate access.

[8+8]

2. (a) Explain two methods of controlling the gain of a radio receiver.

(b) Explain briefly about the following:

Mixer, Choice of IF and Image Frequency.

[4+4+4+4]

3. Define the following terms:

(a) Switching matrix

(b) Switching network

(c) Symmetric network

(d) Folded network

(e) Nonfolded network

(f) Transit exchange

(g) Intelligent network

(h) Control functions

[8x2=16]

4. (a) Write short notes on the following :-

i. Harmonic generators

ii. transmitter power supplies

(b) Explain with suitable block diagram the various stages of a frequency modulated broadcast transmitter. Draw the block schematic of a crystal controlled frequency modulation broadcast station operating on 96.5MHz. The modulating frequency employed cover the range 60 to 12000 HZ .& a maximum deviation of 75 KHZ is desired.

[4+4+8]

5. (a) Write the functionalities of the following:

i. Signalling data link

ii. Signalling link

iii. Signalling network

iv. SCCP

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- (b) Explain about the methods for deciding the root for a particular connection? [16]
6. (a) Explain the principle of time slot interchange (TSI) using an example?
(b) Differentiate between input controlled time division space switch and output controlled time division space switch? [8+8]
7. (a) Differentiate between point to point and multiple point connections?
(b) Explain about SONET system. [8+8]
8. (a) Discuss the differences between FM and AM receivers. [3]
(b) Draw a block diagram of a superherodyne FM receiver and explain the functions of each block. [2+5]
(c) Write about fading. [6]
