

## Unit 3 - Week 0

### Course outline

How does an NPTEL online course work?

#### Week 0

Quiz : Assignment 0

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#### Tutorial Materials

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## Assignment 0

The due date for submitting this assignment has passed.  
As per our records you have not submitted this assignment.

**Due on 2020-02-24, 23:59 IST.**

1) Out of following statements related to cellular communication, which is not correct? 1 point

- a. 1G used analog communication.
- b. 2G was developed for voice communication.
- c. GPRS is also known as 2.5G.
- d. MIMO was introduced in 4G

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
d.

2) A digital source takes 1 point

- a. continuous values in continuous time
- b. continuous values in discrete units of time
- c. discrete values in continuous time
- d. discrete values in discrete units of time

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
d.

3) The received signal strength in the mobile phones is in the range of 1 point

- a. 10-20 watt
- b. 1-10 watts
- c. 0.1-1 watt
- d.  $10^{-3}$ - $10^{-6}$  watt

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
d.

4) Which of the following options denote the correct pairs of standard and modulation schemes? 1 point

- a. 2G:GMSK, 3G:WCDMA, 4G:OFDM
- b. 2G:OFDM, 3G:WCDMA, 4G:GMSK
- c. 2G:WCDMA, 3G:OFDM, 4G:GMSK
- d. 2G:WCDMA, 3G:GMSK, 4G:OFDM

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
a.

5) The altitude of a geostationary satellite from earth's mean sea level is approximately 1 point

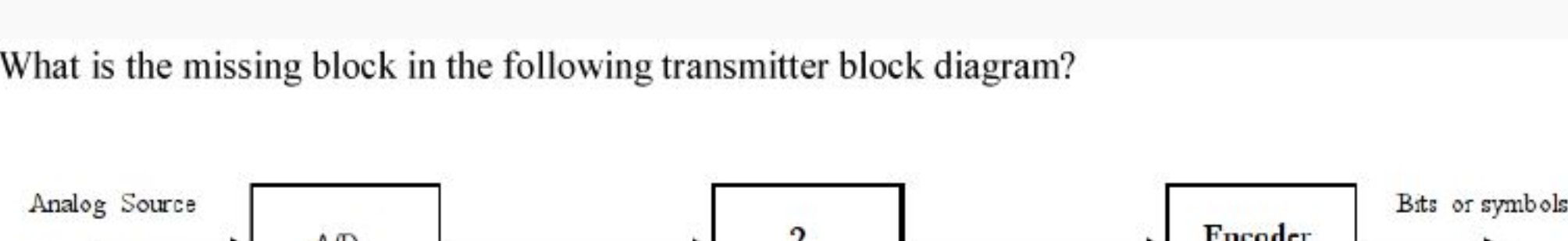
- a. 357 km
- b. 3570 km
- c. 35700 km
- d. 357000 km

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
c.

6) What is the missing block in the following transmitter block diagram? 1 point



- a. Decoder
- b. Amplifier
- c. RAM
- d. Quantizer

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
d.

7) A signal has maximum frequency content of 10 KHz. What is the minimum sampling frequency required so that the original signal can be reconstructed faithfully? 1 point

- a. 15 KHz
- b. 20 KHz
- c. 30 KHz
- d. 40 KHz

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
b.

8) Packet switching for data was introduced in 1 point

- a. 2G
- b. 3G
- c. 4G
- d. 5G

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
b.

9) Matched filter is used for 1 point

- a. Error probability maximization
- b. Received SNR maximization
- c. Noise maximization
- d. Interference minimization

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
b.

10) The frequency spectrum of rectangular pulse is 1 point

- a. Rectangular
- b. Sinc
- c. Triangular
- d. Gaussian

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
b.

11) Which of the following components of a communication system, the user has no control of? 1 point

- a. Source coder
- b. Interleaver
- c. Channel
- d. Forward Error Correction Coding

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
c.

12) Which of the following is NOT an example of error correcting codes? 1 point

- a. LDPC
- b. Huffman code
- c. Turbo code
- d. Polar code

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
b.

13) In the Phase Modulation technique, the \_\_\_\_\_ of the carrier signal is varied according to the modulating signal 1 point

- a. Frequency
- b. Amplitude
- c. Phase
- d. None of the above

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
c.

14) Autocorrelation function of a white noise is described by: 1 point

- a. A triangle function
- b. A delta function
- c. A square function
- d. None of the above

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
b.

15) Which of the following is a digital modulation technique? 1 point

- a. Pulse Amplitude Modulation
- b. Pulse Width Modulation
- c. Amplitude Shift keying
- d. None of the above

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
c.