RTDC_T5_PRUEBA_EXTERNA_2022

Volver a la Lista de Exámenes

Parte 1 de 1 - 10.0 / 10.0 Puntos

Preguntas 1 de 5	2.0
2.0 Puntos	

An easy and economic way of generating and OFDM modulation is to apply the Discrete Fourier Transform to the input symbols c_k.

- ○ Verdadero
- ◉ Falso

Preguntas 2 de 5	3.0
3.0 Puntos	

The cyclic prefix in OFDM is employed to combat the effects that chromatic dispersion has on the OFDM channel. Which of the following characterize the operation of the prefix (more than one answer valid)

- ☑ A. The value of the guard time has to be higher than the highest propagation delay among subcarriers.
- ☑ B. It is an identical replica of the last part of subcarrier that is placed at the beginning of the symbol period in a guard interval.
- ☑ C. A phase shift estimation is however necessary for each subcarrier to have a correct detection.
- ☑ D. Although due to dispersion some subcarriers are delayed with respect to others the complete OFDM symbol is maintained in the DFT window.

Preguntas 3 de 5	1.0
1.0 Puntos	

In orthogonal time/frequency domain multiplexing we seek:

- ○ A. A detection system that provides delta function performance only for different frequency channels
- ◉ B. A detection system that provides delta function performance for different frequency channels and different time slots
- ○ C. A detection system that provides delta function performance only for different time slots
- ○ D. None of the above

Preguntas 4 de 5	2.0
2.0 Puntos	

For Nyquist systems we use pulses with square profile in the time domain and sinc shape in the spectrum

- ○ Verdadero
- ◉ Falso

Preguntas 5 de 5	2.0
2.0 Puntos	

Using subcarrier frequencies separated by 1/T in ODFM enables:

- ○ A. Only the generation of coefficients via DFT
- ○ B. Only the generation of coefficients via iDFT
- ◉ C. Both the generation of subcarrier coefficients via iDFT and the kronecker delta behaviour of the channel interference when they have different frequencies.
- ○ D. Both the generation of subcarrier coefficients via DFT and the kronecker delta behaviour of the channel interference when they have different frequencies.