

# Ejercicios de diseño de enlaces ópticos. Soluciones.

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## Ejercicio 1

- a) LD2 + Monomodo 1250nm + NRZ
- b) LD1 + Monomodo 900nm, LD2 + Monomodo 1250 nm, etc
- c) -49.9 dBm, -80.9 dBm, -49.9 dBm

## Ejercicio 2

- a) Equipo 1 + Fibra multimodo

## Ejercicio 3

- a) 66 Mbps, No

## Ejercicio 4

|     | S.I.                         | I.G.                          |
|-----|------------------------------|-------------------------------|
| LED | 14.84 Mbps, E3 (480 canales) | 34.45 Mbps, E3 (480 canales)  |
| LD1 | 16.22 Mbps, E3 (480 canales) | 96.34 Mbps, E4 (1920 canales) |

The logo for Cartagena99 features the text 'Cartagena99' in a stylized, blue, serif font. The '99' is significantly larger and more prominent than the 'Cartagena' part. The text is set against a light blue background with a white shadow effect, and a blue arrow-like shape points upwards from behind the text.

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## Ejercicio 6

- a) No
- b) 1,046 GHz · km

## Ejercicio 7

|                 |      |      |      |       |
|-----------------|------|------|------|-------|
|                 | 34   | 140  | 565  | 1200  |
| $\alpha(dB/km)$ | 1.11 | 0.84 | 0.54 | 0.376 |

The logo for Cartagena99 features the text 'Cartagena99' in a stylized, blue, serif font. The '99' is significantly larger and more prominent than the rest of the text. The logo is set against a light blue background with a white arrow pointing to the right, and a yellow shadow is cast beneath the text.

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