Time left 0:05:49

Question **1**

Not yet answered

Marked out of 1.00

Zero dispersion wavelength in optical fiber is

- a. 1630nm
- b. 870nm
- c. 1310nm
- d. 1550nm

Clear my choice

Question **2**

Not yet answered

Marked out of 1.00

Dispersion in optical fiber communication

- a. Absorption of light pulses
- b. Broadening of transmitted light pulses along the channel
- c. Overlapping of light pulses on compression
- d. Compression of light pulses

Clear my choice

Question **3**

Not yet answered

Marked out of 1.00

In order for neighbouring signal pulses to distinguishable at the receiver, the pulse spread should be _____

- a. greater than bit peroid
- b. less than bit period
- c. less than reciprocal of the bit period
- d. greater than reciprocal of the bit period

Question **4**

Not yet answered

Marked out of 1.00

Spectral width of the C band used in optical fiber communications

- a. 1260nm to 1360 nm
- b. 1560nm to 1625nm
- c. 1625nm to 1675 nm
- d. 1530nm to 1565 nm

Clear my choice

Question **5**

Not yet answered

Marked out of 1.00

Determine the bulk recombination life time for the double hetro junction InGaAsP LED emitting peak wavelength of 1310 nm has radiative and non radiative recomibination times of 20 and 90 ns respectively.

- a. 18.36ns
- b. 19.36ns
- c. 16.36 ns
- d. 17.36ns

◄ Syllabus

Jump to...

In order for neighbouring signal pulses to distinguishable at the receiver, the pulse spread should be _____

a.
greater than bit period

b.
less than a bit period

c.
less than the reciprocal of the bit period

d.
greater than the reciprocal of the bit period

The pulse spread should be less than the bit period to ensure that neighboring signal pulses are distinguishable at the receiver. This prevents overlap between consecutive pulses, allowing for accurate detection and interpretation of the transmitted data.

So, the correct answer is:

b. less than bit period

7)
_____ noise inversely proportional to load resistor

a.
Dark current

b.
None of the above

c.
Shot

d.
Thermal

The noise inversely proportional to the load resistor is thermal noise.

So, the correct answer is:

d. Thermal

8)
Optical amplifier which uses external current injection pumping is called

a.

none of the above

b.
Semi-conductor optical amplifier

c.
Raman amplifier

d.
Erbium-doped fiber amplifier

The optical amplifier that uses external current injection pumping is called a semiconductor optical amplifier (SOA).

So, the correct answer is:

b. Semiconductor optical amplifier

9)
Find the acceptance angle, if the numerical aperture of the multimode silica fiber is 0.242.

a.
14 degrees

b.
10 degrees

c.
28 degrees

d.
32 degrees

The acceptance angle (
θ
θ) of a multimode fiber can be calculated using the formula:

θ
=
arcsin
(
N
A
)
θ=arcsin(NA)

where NA is the numerical aperture.

Given NA = 0.242, we can calculate the acceptance angle:

$\theta = \arcsin(0.242)$
θ=arcsin(0.242)

$\theta \approx 14$ degrees
θ≈14 degrees

So, the correct answer is:

a. 14 degrees

9)
The unit express power level P as a logarithmic ratio of P referred to 1mW is

a.
dB

b.
uW

c.
mW

d.
dBm

The unit expressing power level
P
P as a logarithmic ratio of
P
P referred to 1mW is dBm.

So, the correct answer is:

d. dBm

10)

Most material exhibit different electron ionization rates and hole ionization rates . the given statement is

a.
false

b.
true

The statement is true. Most materials exhibit different electron ionization rates and hole ionization rates.