

Question No 1 (30 degrees)**Choose the correct answer:**

- 1-When light is reflected or scattered by bodies, we see : (A) light (B) bodies (C) Spectrum
2. light can be considered as....so it is treated in geometrical way (A) particles (B) waves (C) energy
3. light Reflects when falling on a smooth glossy surface, which forces us to deal with it as
(A) particles (B) waves (C) energy
4. Light diffracts when it passes through very narrow slit which forces us to treat it as :
(A) particles (B) waves (C) energy
5. When we use the words " photons – frequencies – energies " we are talking in Language.
(A) particulate (B) Wavelike (C) quantum
6. -Both reflection and refraction of light -together- can't be treated unless considering light as...
(A) Particles (B)Waves (C)Photons
7. Spontaneous emission is characterized in :
(A)Phase difference (B)Destructive Interference (C)Optical resonance
8. Stimulated emission is characterized in:
(A)Phase difference (B)Constructive Interference (C)Coherence
9. In Stimulated emission all obtained photos have the same :
(A)Phase (B)Energy (C)Direction (D) all of the above
10. Light amplification by stimulated emission of radiation is : (A)Laser (B)Maser (C)leather
11. Laser is ultra-pure because it is : (A)Mono Wavelength (B)Monochromatic (C)High frequency
12. Laser is characterized in being coherent which means it is coherent in
(A)Space (B)Time (C)Space-time
13. 9-Light intensity doesn't decrease with distance; it means that it goes in Lines:
(A)Straight (B)Parallel (C)Straight-Parallel
14. Parallel rays that are parallel to the lens axis are focused in:
(A) main focus (B)Secondary focus (C)Multiple focus
15. Parallel rays that are incident at some angle relative to the lens axis are focused in :
(A) main focus (B) Secondary focus (C)Multiple focus
16. The focus of the lens according to the wave treatment
(A) rings of lighting & dimness (B) Point (C) Spot
17. The best light to be used with the Mono-mode fiber is: (A) ordinary light (B) LASER (C) X-ray
18. A flow of electrons along a wire is called:
(A). electromagnetism (B). static electricity (C). current electricity
19. Ohm' Law is: (A). Resistance = voltage \times current (B). $V = I \times R$ (C). $R = V \times I$
- 20.A device to change the voltage of an electric current is the: (A) transformer (B) ammeter (C) voltmeter

Question No 2 (10 degrees)**Choose and discuss the correct answer:**

1. Vision requires the presence of: (A) Light Source (B) Vision instrument (C) medium
2. We can use the light in life applications as a result of our knowledge of its:
(A) laws of motion (B) behaviors (C) nature
3. Different colors are.... (A) waves (B) particles (C) vibrations
4. Gas type of Laser requires the presence of : (A)One gas (B)Two gases (C)Several gases

Question No 3 (10 degrees)

A- (4 degrees)

To know the essence (جوہر و کیفیت) of light, there is no contradictions in our - considerations and methods of treatment - .. Explain shortly?

B- (6 degrees)

Comment shortly on the following images :

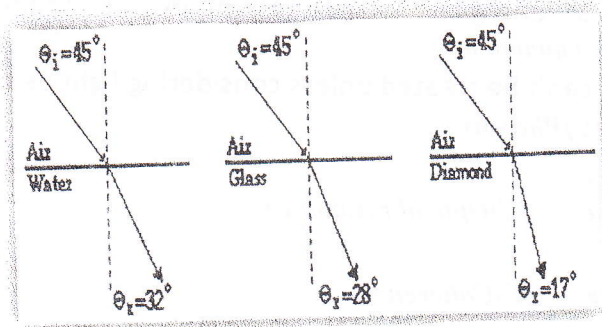


Image (1)

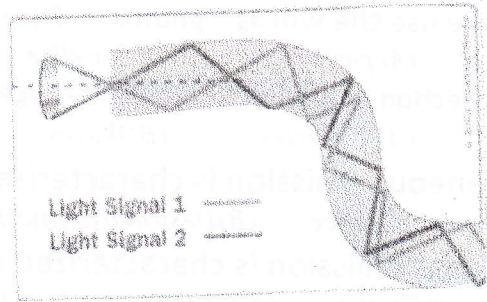


Image (2)

انہت الأسئلة مع النمیات بالنوفیق _ Best Wishes _____
صام وحید

(2)