

SSLC PHYSICS 2018

Answer key

1. Humidity, temperature/ wind / density
2. Solar cell, Solar cooker / Solar water heater
3. Voice Coil
5. Yellow. Others are Primary colours/ yellow is a secondary colour
6. a. Conductors having Low melting Point
b. The amperage of the fuse wire Must be increased
7. a. $D = V \times t / 2$
 $= 340 \times 2 / 2$
 $= 340\text{m}$
b. Persistence of audibility
8. a. LED
b. Photo diode.
LED emit light . Photo diode absorb light
9. Primary
winding with thin wire
current flowing at higher voltage
Secondary
winding with thick wire
current flowing at low voltage
10. a. $H = I^2 R t$. When resistance is decreased heat produced can be minimised.
b. When voltage is increased Current can be decreased and heat produced can be minimised.
- 11 a. To avoid spark
b. Permanent magnet will loose its magnetism gradually
c. To get three AC of different Phase.
12. a. M – diode
N – Resistor / Output load resistor / output
b (i) Centre Tap Transformer
(ii) 2
c. Fig 7.11 of page 127
13. a. Evaporation
b. High specific heat capacity of water
c. High Latent heat of fusion of ice
14. a. B1 & B2
b. B3 & B4
c. Resistance can be reduced and each appliance can be controlled separately.
15. a. Morning
b. Fig 6.4 page 105
16. a. Increase / Vary
b. 512 Hz. Resonance. When the natural frequency of the body undergoing vibration is equal to that of the influencing body, loud sound can be heard.
17. a. difference in specific heat capacity
b. Water
c. Lead
18. a. $I = V/R$
 $= 230/115$
 $= 2 \text{ A}$
b. $P = VI$
 $= 230 * 2 = 460 \text{ W}$

c. $H = P \cdot t = 460 \cdot 10 \cdot 60 = 276000 \text{ J}$

19. a. Infrared

b. Violet

c. Ultraviolet – Vitamin D , Skin Cancer

Infrared – Distant photography, Makes sunlight Hot.

20.a. Solid – Coal

Liquid – Petrol

b. Coal

c. Formed by the decomposition of plants and animals, buried under the earth millions of years ago, in the absence of oxygen , under high pressure and temperature .

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