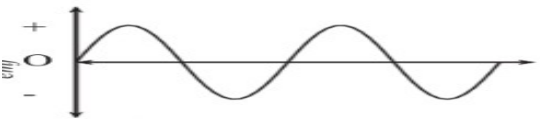


# PRE-MODEL SSLC EXAMINATION -ANSWER KEY

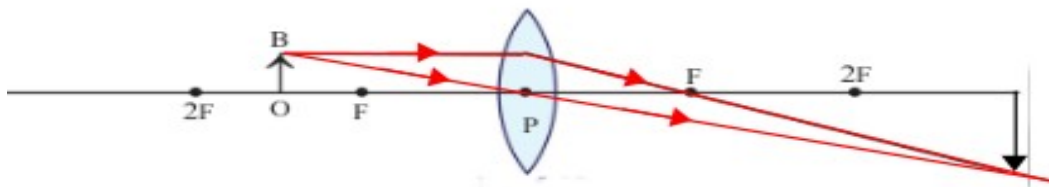
## PHYSICS (max score:40)

1. Tungsten filament (1)
2. Motor principle (1)
3. Graphite brush (1)
4. Convex mirror (1)
5. Butane (1)
6. 48.6 (1)
7. Solar energy to Electrical energy (1)
8. Plane mirror (1)
9. Presbyopia (1)
10. 1. number of turns in the solenoid  
2. the strength of current in the solenoid  
3. The area of cross section of the soft iron core. (any two) (2)
11. 1) The life cycle of living beings will be affected adversely.  
2) Sky watching becomes impossible due to diminished sky vision.  
3) The light from tall flats misleads the migrating birds. It affects of direction, the accuracy of their judgement  
4) The excess light from the high beam of headlight in vehicles causes a hindrance to the vision of others and can cause accidents. (4\*1/2=2)
12.  $750 \times 2 \times 1000 = 1.5 \text{ Kwh}$  (2)
13. a.  (1)
- b. DC generator (1)
- c. 1.direction does not changes 2.no fluctuation in emf (1/2\*2=1)
14. a. 40 (1)
- b. AO (1)
- c. same (1)
15. a. myopia or near sightedness (1)
- b. eyeball may be long (1)
- power of the eye lens may be more (1/2\*2=1)
- c. using concave lens (1)
16. green energy- (3)

Green energy	Brown energy
solar cell, wind mill, tidal energy	atomic reactor, diesel engine, thermal power station

- 17.a, glass (1)  
 b. water (1)  
 c.  $n = c/v$   
 $1.5 = 3 \times 10^8 / v$   
 $v = 3 \times 10^8 / 1.5 = 2 \times 10^8$  (1)
- 18 a.  $H = V^2 t / R = 230^2 \times 20 \times 60 / 115 = 552000J$  (2)  
 b.  $I = V/R = 230/115 = 2 A$  (2)
19. a. A-Armature (1/2)  
 B-Split ring (1/2)  
 b. Anticlockwise (1)  
 c. To rotate the armature continuously (1)  
 d. Remove the battery, Change the split ring in to slip ring (1)

20. a.  $u = -60 \text{ cm}$   
 $v = -40 \text{ cm}$  (1)  
 b.  $f = uv/u+v = -60 \times -40 / -60 + -40 = -24 \text{ cm}$  (2)  
 c.  $m = -v/u = -40 / -60 = -2/3$  (1)
21. a. Tungsten (1)  
 b. High resistivity, High melting point, High ductility, Ability to emit white light (any two) (2)  
 c. To avoid the oxidation of filament (1)
22. a. Write Definition (1)  
 b. Highly inflammable, Highly explosive in nature, Difficult to store and transport (1)  
 c. Should be easily available, Should be low cost (or any other two) (2)
- 23, a. (2)



- b. Real, Inverted, Magnified (any two) (2)  
 c. Optic center (1)
24. a. Bulb glows (1)  
 b. Bulb does not glow (1)  
 c. AC is given to the primary coil instead of DC (1)  
 d. Mutual induction, Definition of mutual induction (2)