SSLC EXAMINATION
MARCH - 2020
PHYSICS ANSWER KEY

SECTION-A

1. $f = \frac{24}{2} = 12\,cm$

2. A to B

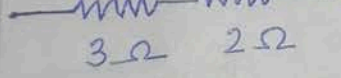
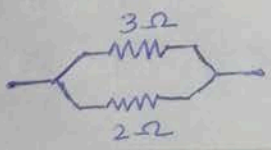
3. (B)

4. b) Violet, Blue, Yellow, Red

5. coke, coalgas, coaltar, etc.

SECTION-B

6.

	R	V	I
	Increases	different	same
	Decreases	same	different

7. * Give artificial respiration
   * Raise the temperature of the body by massage.
   * Apply pressure on chest.

8. a) B to A

   b) Outwards the magnet

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9. a) A - Asmature
B - Split ring

b) * Use slip rings
* Use field magnets

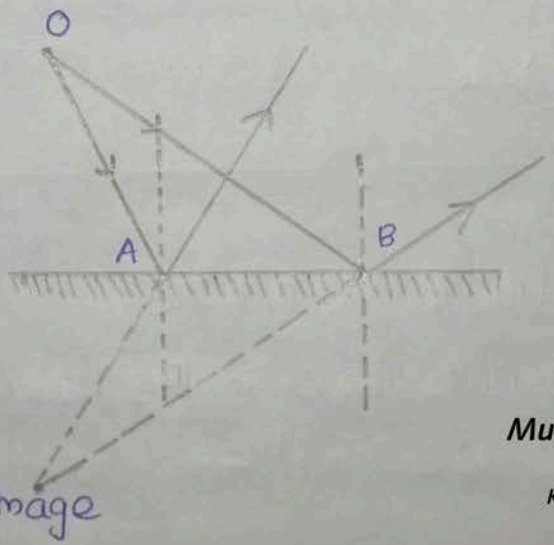
10. The rays of light appear to come from different points on reaching the eye after refraction. This is the reason for the twinkling of stars.

SECTION - C

11. a) Heater - B

b) Heater - B.
Because when the resistance decreases current increases so heat increases.

12. a)



b) Virtual, erect, same size

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13.a) 60° $(90^\circ - 30^\circ)$

b) Because the ray of light bends towards the normal when light travels to denser medium.

c) $n = \frac{\sin i}{\sin r} = \frac{\sin 60^\circ}{\sin 33^\circ}$

14.a) Myopia or short sightedness.

b) * Power of lens increases.
* Size of eye ball increases.

c) A concave lens causes light rays to diverge before they strike the lens of the eye so that the image is formed on the retina. So it is used to rectify Myopia.

15.a) A 20

b) * Examine the rubber tube at regulator intervals.
* Turn on the knob of stove only after the regulator is turned on.

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SECTION-D

16.a) Figure - B

b) Electromagnetic induction.

c) Moving coil microphone, Generator

17.a) Tyndal effect

b) Perosistance of vision

c) Scattering of light

d) Power of accommodation

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18.a) Q - 10 V
P - 5 V

b) 5 V

c) Q will produce more heat.

Resistance of P = $100 + 100 \Omega = 200 \Omega$

R of Q = $\frac{100}{2} = 50 \Omega$

$H = \frac{V^2 t}{R}$, so when resistance decreases heat increases.

19.a) (B_1)

b) Two bulbs [B_1 and B_2] glows due to mutual induction
Intensity of B_1 increases due to selfinduction.

20.a) Optic centre is the midpoint of the lens.

b) centre of curvature is the centre of the imaginary spheres of which the sides of the lens are parts.

c) Light rays incident parallel and close to the principal axis after refraction converges to a point on the principal axis of a convex lens. This point is called principal focus of convex lens.

d) It is the distance from the optic centre to the principal focus.