

**PARSHVAA EDU
MENTOR**

Std.: 10th (ENGLISH)

Sub: Science I

Time: 2 hour

ABC BRANCH

Marks: 40

Chapters: All

SECTION – A

Q.1.(A) (a) Fill in the blanks and rewrite the statements: (3)

- (1) The flow of large amount of current flowing in the circuit beyond permissible value of current is called
- (2) The refractive index depends upon the _____ of propagation of light in different media.
- (3) A wire of 9 ohm resistance having 30 cm length is tripled on itself. Its new resistance is _____ ohm.

(A) (b) Rewrite the following table so as to match second and third column with first column (2)

- (1) Fe : electropositive :: Cl
- (2) _____ : Sour taste :: Bases : Bitter taste.

(B) Rewrite the following statement by selecting the correct option: (5)

- (1) The SI unit of potential difference is
(a) volt (b) ampere (c) ohm (d) coulomb
- (2) A _____ converges the rays of light falling on it.
(a) concave mirror (b) convex mirror (c) plane mirror (d) none of these
- (3) A glass slab is placed in the path of convergent light, the point of convergence of light _____ (Oct'15)
(a) moves away from the slab. (b) moves towards the slab (c) remains at the same point.
(d) undergoes a lateral shift
- (4) Solenoid has properties similar to
(a) magnet (b) resistance (c) electric motor (d) optical instruments
- (5) To observe the reaction of water on quicklime,.....
(a) quicklime is added to water in a test tube. (b) a lot of water is added to quicklime. (c) few drops of water are added to quicklime. (d) none of these.

Q.2. Answer the following questions (any five): (10)

- (1) **Answer the following :**
Suggest measures to avoid pollution of land when you go on a picnic.
- (2) **Write short notes on the following:**
Heating effect of electric current in a fuse.
- (3) **Differentiate between the following:**
Physical change and Chemical change
- (4) **Give scientific reasons:**
Concave mirrors are used in solar devices.

(5) State the laws/rules/ Define/terms/Uses:

- (A) Electromagnetic Induction
- (B) Electric Motor

(6) Match the following:

Group A	Group B
(a) Sodium	(1) Non-metal
(b) Sulphur	(2) Lanthanide
	(3) Metal
	(4) Transition metal.

Q.3. Answer the following (any five):

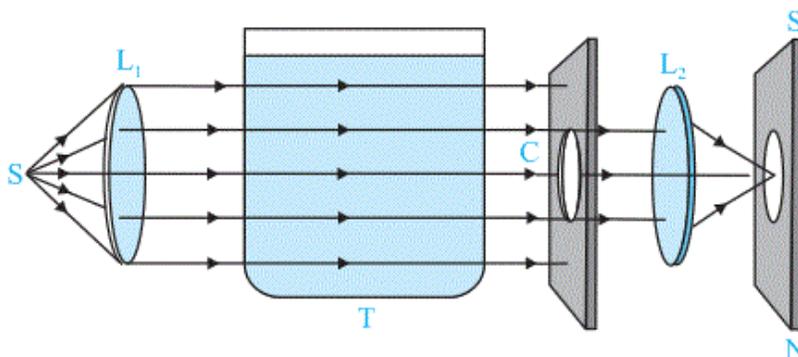
(15)

- (1) Describe the effects of air pollution on animals and plants.
- (2) What is the valency of elements with atomic number 8,14,17 and 20?
- (3) What, according to you is the reason for aluminium utensils regaining their original shine when green leafy vegetables are boiled in them?
- (4) A washing machine rated 300 W is operated for one hour/day. If the cost of unit is Rs 3.00. Find the cost of energy to operate a washing machine for the month of March?
- (5) State the characteristics of magnetic lines of force.
- (6) What is meant by power of accommodation of eye ?

Q.4. Answer any one of the following questions:

(5)

- (1) · Place a strong source (S) of white light at the focus of a convex lens (L₁). This lens is useful to get a parallel beam of light. · Pass these parallel rays through a transparent glass beaker containing clear water. · Place a cardboard having a hole (as shown in the figure) after the beaker. · Also arrange a second convex lens (L₂) and screen as shown in the figure. · Switch on the source of light and by adjusting the distance of second lens and the screen; obtain a sharp image of the circular hole on the screen. · Now add 25-gram Sodium thiosulphide in 250 ml of water in the beaker and add a drop of concentrated sulphuric acid in it. · What do you observe when you look from the sides of the beaker? · Note your observation about the colour of image of the source on the screen.



An arrangement for observing scattering of light in colloidal solution

- (2) A person has heart burn and sour taste i. What is he suffering from? ii. Suggest home remedies to treat that person iii. What is nature of that sour substance and how it will react to universal indicator?