

**LITTLE FLOWER CONVENT HIGH SCHOOL,
SOLAPUR**

II-Prelims 2022

STD	SUBJECT	TIME	MARKS
X	SCIENCE AND TECHNOLOGY PART-I	1 HOURS	50

Q 1] Choose the correct option :

[10]

- 1) The number of electrons in the outermost shell of alkali metals is -----.**
i) 1 ii) 2 iii) 3 iv) 7
- 2) ----- is used to study the anomalous behaviour of water.**
i) Calorimeter ii) Joule's apparatus iii) Thermometer iv) Hope's apparatus
- 3) Relative humidity at dew point is-----percent.**
i) 100 ii) 50 iii) 25 iv) 0
- 4) ----- has the highest absolute refractive index.**
i) Quartz ii) Diamond iii) Ruby iv) Crown glass
- 5) The process of separation of light into its component colours while passing through a medium is called-----.**
i) Reflection ii) Refraction iii) Dispersion iv) Total internal reflection
- 6) -----is an ore of Aluminium.**
i) Cryolite ii) Bauxite iii) Haematite iv) Aluminium carbonate
- 7) Jewellery articles are gold plated-----.**
i) to prevent corrosion ii) to prevent rusting iii) to make articles attractive iv) All of these.
- 8) The process of heating an ore to high temperature in excess of air and converting to its oxide is called-----.**
i) metallurgy ii) Calcination iii) Roasting iv) Concentration
- 9) The unique ability of carbon to form strong covalent bonds with other carbon atoms is called-----.**
i) isomerism ii) allotropism iii) catenation iv) polymerization
- 10) A manmade object revolving around the earth or any other planet in a fixed orbit is called-----.**
i) INSAT ii) Artificial satellite iii) Launch vehicle iv) Space debris

Q 2] Find the co relation : **[05]**

- a) Dobereiner : Triads :: Newlands :-----
- b) Deviated least due to prism: Red :: Deviated maximum due to prism:-----
- c) Mg: Metal :: Antimony:-----
- d) Alkyne: Ethyne :: Alkene:-----
- e) Study and prediction of weather: Weather satellite:: Telecast of television Programs:-----

Q 3] State whether the following statements are true or false: **[04]**

- a) The value of 'g' increases with altitude.
- b) Eka- aluminium was later named as gallium.
- c) The unit of heat is Joule in SI system.
- d) When light ray travels obliquely from glass to air, it bends towards the normal.

Q 4] Match correctly : **[06]**

Column 1	Column 2	Column 3
Far sightedness	Nearby objects can be seen clearly	Bifocal lens
Presbyopia	Far away objects can be seen clearly	Concave lens
Near sightedness	Problems of old age	Convex lens

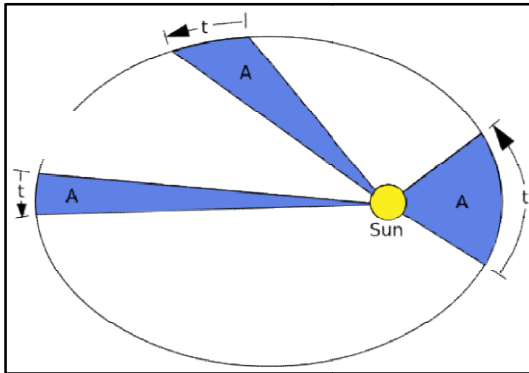
Q 5] Name the following :

[05]

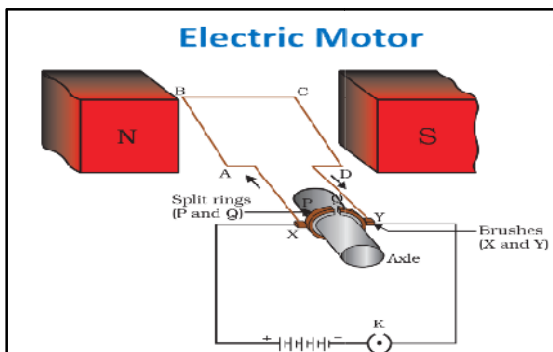
- a) Name the force which acts on any object moving along a circle and is directed towards the centre of the circle.
- b) Name the group with valency zero
- c) A copper wire with resistive coating is wound in a chain of loops. What is it called?
- d) Name the phenomenon in which ice converts to liquid due to applied pressure and then reconverts to ice once the pressure is removed.
- e) Name the impurities like soil, sand, rocky substances present along with metal compounds in ores.

Q 6 Observe the figure and answer the following questions

[05]



- a) Which law is described by the diagram?
- b) State the first law.



- a) Identify the diagram
- b) State the principle on which it works.
- c) Give its uses.

Q 7 Find the odd man out:

[05]

- a) Fluorine, Sulphur, Chlorine, Iodine
- b) Fuse wire, Bad conductor, Rubber gloves, Generator
- c) Temperature, Conduction, Convection, Radiation
- d) Reflection, Refraction, Dispersion, Neutralization
- e) Copper, Iron, Mercury, Brass

Q 8 Complete the table :

[05]

Sr No	Reactants	Products	Type of chemical reaction
1	Ba Cl ₂ + Zn SO ₄	BaSO ₄ + ZnCl ₂	
2	2AgCl	2 Ag + Cl ₂	
3	CuSO ₄ + Fe	FeSO ₄ + Cu	
4	H ₂ O + CO ₂	H ₂ CO ₃	
5	H ₂ S + SO ₂	3S + 2 H ₂ O	

Q 9 Complete the table:

[05]

Sr no	Structural formulae	IUPAC Name
1	CH ₃ -CH ₂ -CH ₂ -CH ₃	?
2	?	Ethanamine
3	?	Butan-2-one
4	CH ₃ -OH	?
5	?	Ethyne