

Chapter: 1 to 10

Q.1 (A) Multiple Choice Questions

(5)

- i) In India, the frequency of alternating current is Hz.
a. 100 b. 50 c. 150 d. 0
- ii) LIGO stands for -
a. Laser Interferometry Gravitational wave observatory
b. Light Intermissionary Gravity observatory
c. Laser Intermissionary Gravitational observatory
d. Light Interference Gravitational waves observatory
- iii) Ethanoic acid with a strong base sodium hydroxide forms a salt and water. The reaction is said to be
a. Neutralization reaction b. Organic salt-water reaction
c. Substitution reaction d. Acid degrading reaction
- iv) Which of the following process to be carried out to avoid the formation of greenish layer on brass vessels due to corrosion?
a. plating b. anodization c. tinning d. alloying
- v) Which is a property of the gases in group 18.
a. malleability.
b. brittleness.
c. high electrical conductivity.
d. unlikely to react with other elements.

(B) Answer the following question

(5)

i) Find the odd one out.

. cal/g, cal/g.°C, kcal/kg.°C, erg/g.°C

ii) Find co-related terms

GSAT : Satellite :: : Satellite Launch Vehicle

iii) Match the pair.

Column "A"	Column "B"
i. Latent heat of fusion of ice	a. 540 cal/g
ii. Specific heat of water	b. 0 °C

	c. 1 cal/g °C
	d. 80 cal/g

iv) State true or false.

The Principal focus of Concave lens is Virtual

v) Name the following

Name the two types of hydrocarbons.

Q.2 A) Give scientific reason. (Any two)

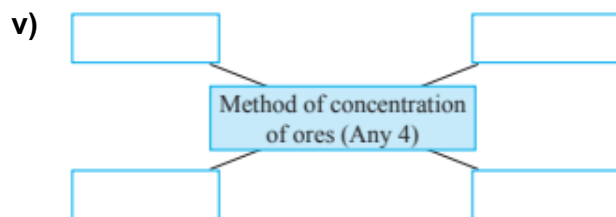
(4)

- i) It is recommended to use air tight containers for storing oil for long time.
- ii) Aluminium is highly reactive metal, still it is used to make utensils for cooking.
- iii) Atomic radius goes on increasing down a group.

B) Answer the following questions. (Any three)

(6)

- i) Balanced equation
- ii) Who will spend more electrical energy? 500 W TV set in 30mins or 600 W heater in 20 mins?
- iii) **Answer the following question**
 - i) How does the short circuit form? What is its effect?
- iv) Complete the reactions and identify their types.
 $\text{CuSO}_4(\text{aq}) + \text{Fe}(\text{s}) \rightarrow \dots + \dots$



Q.3 Answer the following questions. (Any five)

(15)

- i) An iron ball of mass 3 kg is released from a height of 125 m and falls freely to the ground. Assuming that the value of 'g' is 10 m/s², calculate:
 - a. time taken by the ball to reach the ground
 - b. velocity of the ball on reaching the ground

- ii) Identify the type of heat in the following conversion of heat and define them:
Recognize A, B, C.



- iii) Read the statements given below. Identify and write the concept upon which the given statement is based.

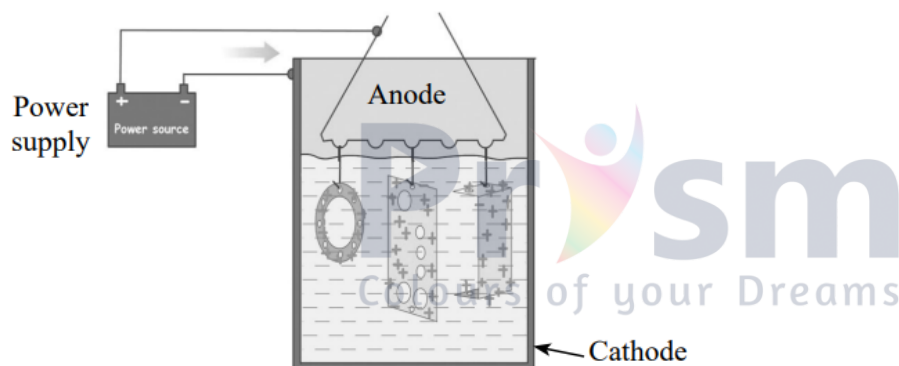
- i. Method which involved many steps to balance an equation
- ii. Equations are balanced in accordance with law
- iii. Electric current is passed through acidulated water. Which type of reaction takes place.
- iv. The Rancidity in the food stuff cooked in oil or ghee is prevented by using these. Identify.
- v. This type of reaction takes place during cellular respiration.
- vi. I am used in voters ink. Wha am I.

iv) Complete the paragraph:

(reflective index, Christiaan Huyghens , violet , Sir Issac Newton, dispersion, spectrum, red , refractive index)

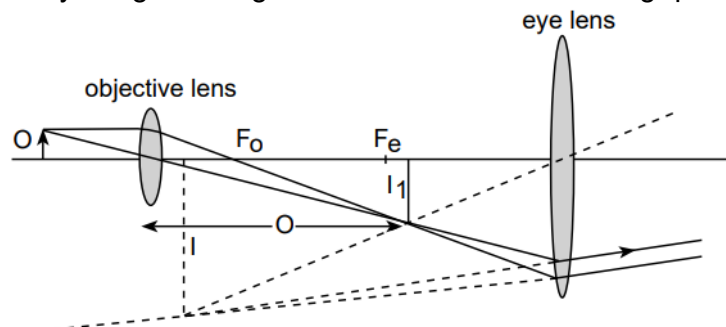
The prism itself does not give any colour. It simply splits white light into seven colours. This seven colour band is called This phenomenon is called The reason of dispersion of light is different of a medium for different colours. was the first person to use a glass prism to obtain sun's spectrum when white light is incident on the prism , different colours bend through different angles. Among the seven colours, bends the least, while bends the most.

v)



- (a) Name the method of prevention of corrosion.
- (b) For prevention of which metal this method is used?
- (c) What can be used as anode?

vi) Study the given diagram and answer the following questions:



- a. In which type of microscope do you find the lens arrangement as shown in the above diagram?
- b. Why objective lens is smaller than eye piece?
- c. Where is this type of microscope used?

vii) Overloading of domestic electric circuits may cause fire. Suggest precautions to avoid this situation.

viii) Saturated hydrocarbons are classified into three types. Write these names giving one example each.

Q.4 Answer the following questions. (Any one)

(5)

- i) Explain the working of astronomical telescope using refraction of light.
- ii) Observe the following graph. Considering the change in volume of water as its temperature is raised from 0°C , discuss the difference in the behavior of water and other substances. What is the behavior of water called ?

