

7th New Science 1st Term Book Back Questions in English

1. Measurements

I. Choose the appropriate answer:

1. Which of the following is a derived unit?

- a) mass b) time c) area d) length

2. Which of the following is correct?

- a) 1L = 1cc b) 1L = 10 cc c) 1L = 100 cc d) 1L = 1000 cc

3. SI unit of density is

- a) kg/m^2 b) kg/m^3 c) kg/m d) g/m^3

4. Two spheres have equal mass and volume in the ratio 2: 1. The ratio of their density is

- a) 1: 2 b) 2: 1 c) 4: 1 d) 1: 4

5. Light year is the unit of

- a) Distance b) time c) density d) both length and time

II. Fill in the blanks:

1. Volume of irregularly shaped objects are measured using the law of _____.

Ans: Archimedes

2. One cubic metre is equal to _____ cubic centimetre.

Ans: 100

3. Density of mercury is _____.

Ans: 13600 kg/m^3

4. One astronomical unit is equal to _____.

Ans: $1.496 \times 10^{11} \text{m}$

5. The area of a leaf can be measured using a _____.

Ans: graphical method

III. State whether the following statements are true or false:

1. The region covered by the boundary of the plane figure is called its volume. **False**
2. Volume of liquids can be found using measuring containers. **True**
3. Water is denser than kerosene. **True**
4. A ball of iron floats in mercury. **True**
5. A substance which contains less number of molecules per unit volume is said to be denser. **False**

IV. Match the items in column-I to the items in column-II:

- | | |
|--------------|-------------------------|
| i. Area | (a) light year |
| ii. Distance | (b) m ³ |
| iii. Density | (c) m ² |
| iv. Volume | (d) kg |
| v. Mass | (e) kg / m ³ |

Ans: CAEBD

(2) Column-I Column-II

- | | |
|--------------|---------------------------|
| i. Area | (a) g / cm ³ |
| ii. Length | (b) measuring jar |
| iii. Density | (c) amount of a substance |
| iv. Volume | (d) rope |
| v. Mass | (e) plane figures |

Ans: EDABC

V. Arrange the following in correct sequence:

1. 1L, 100 cc, 10 L, 10 cc

Ans: 10cc, 100cc, 1L, 10L

2. Copper, Aluminium, Gold, Iron

Ans: Aluminium, Iron, Copper, Gold

VI. Use the analogy to fill in the blank:

1. Area: m^2 :: Volume: _____

Ans: m^3

2. Liquid: Litre :: Solid: _____

Ans: Cubic Metre

3. Water: kerosene :: _____ : Aluminium

Ans: Iron

Problems:

1. What is the area of a 10 squares each of side of 1 m.

Area of a square = side \times side

$$= 1\text{ m} \times 1\text{ m} = 1\text{ m}^2 \text{ or } 1\text{ square metre}$$

Area of 10 squares = 1 square metre \times 10

$$= 10\text{ square metre}$$

2. Find the area of the following regular shaped figures: (Take $\pi = 22/7$)

(a) A rectangle whose length is 12 m and breadth is 4 m.

(b) A circle whose radius is 7 m.

(c) A triangle whose base is 6 m and height is 8 m.

Solution:

(a) Area of rectangle = length \times breadth = $12 \times 4 = 48\text{ m}^2$

(b) Area of circle = $\pi \times r^2 = (22/7) \times 7 \times 7 = 154\text{ m}^2$

(c) Area of triangle = $(1/2) \times \text{base} \times \text{height} = (1/2) \times 6 \times 8 = 24\text{ m}^2$

3. Find the volume of (Take $\pi = 22/7$) i. a cube whose side is 3 cm.

ii. a cylinder whose radius is 3 m and height is 7 m.

Solution: (a) Volume of a cube = side \times side \times side

$$= 3 \text{ cm} \times 3 \text{ cm} \times 3 \text{ cm} = 27 \text{ cubic cm or cm}^3.$$

(b) Volume of a cylinder = $\pi \times r^2 \times \text{height} = (22/7) \times 3 \times 3 \times 7 = 198 \text{ m}^3$.

4. A solid cylinder of mass 280 kg has a volume of 4 m^3 . Find the density of cylinder.

Solution:

Density of cylinder = mass of cylinder / volume of cylinder = $280/4$

$$= 70 \text{ kg/m}^3$$

5. A box is made up of iron and it has a volume of 125 cm^3 .

Find its mass. (Density of iron is 7.8 g / cm^3).

Solution: Density = Mass / Volume Hence, Mass = Volume \times Density = $125 \times 7.8 = 975 \text{ g}$.

6. A sphere is made from copper whose mass is 3000 kg.

If the density of copper is 8900 kg/m^3 , find the volume of the sphere.

Solution: Density = Mass / Volume

Hence, Volume = Mass / Density

$$= 3000 / 8900 = 30 / 89 = 0.34 \text{ m}^3$$

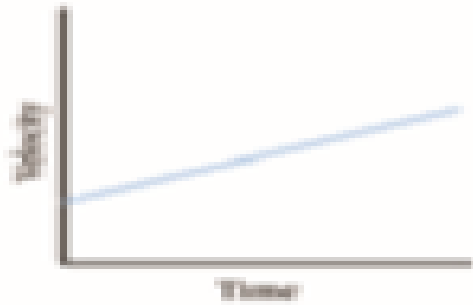
2. Force and Motion

I. Choose the best answer.

1. A particle is moving in a circular path of radius r . The displacement after half a circle would be

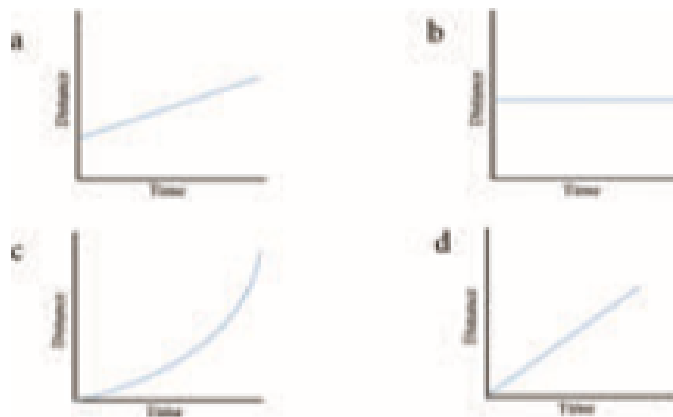
a. Zero b. R c. $2r$ d. r

2. From the given v - t graph it can be inferred that the object is



- a. in uniform motion
- b. at rest
- c. in non uniform motion
- d. moving with uniform acceleration

3. Which of the following figures represent uniform motion of a moving object correctly?



Ans: d

4. Suppose a boy is enjoying a ride on a merry go round which is moving with a constant speed of 10 m/s. It implies that the boy is

- a. at rest
- b. moving with no acceleration
- c. in accelerated motion
- d. moving with uniform velocity

5. What is one way you might increase the stability of an object?

- a. lowers the centre of gravity
- b. raises the centre of gravity
- c. increases the height of the object
- d. shortens the base of the object

II. Fill in the blanks.

1. The shortest distance between the two places is _____.

Ans: Straight Path

2. The rate of change of velocity is _____.

Ans: Acceleration

3. If the velocity of an object increases with respect to time, then the object is said to be in _____ acceleration.

Ans: Positive

4. The slope of the speed–time graph gives _____.

Ans: Positive

5. In _____ equilibrium its centre of gravity remains at the same height when it is displaced.

Ans: Neutral

III. Match the following:

- 1. Displacement - Knot
- 2. Light travels through vacuum - Geometric centre
- 3. Speed of ship - Metre
- 4. Centre of gravity of the geometrical shaped object - Larger base area
- 5. Stability - Uniform velocity

Ans: 34152

IV. Analogy

1. velocity : metre/ second : : acceleration : _____ .

Ans: metre/second²

2. length of scale : metre : : speed of aeroplane : _____ .

Ans: Knot

3. displacement / time : velocity : : speed / time : _____ .

Ans: Distance

3. Matters Around Us

I. Choose the appropriate answer.

1. Which of the following is an example of a metal?

- a. Iron b. Oxygen c. Helium d. Water

2. Oxygen, hydrogen, and sulphur are examples of which of the following?

- a. Metals b. Non-metals c. Metalloids d. Inert gases

3. Which of the following is a short and scientific way of representing one molecule of an element or compound?

a. Mathematical formula

b. Chemical formula

c. Mathematical symbol

d. Chemical symbol

4. The metals which is a liquid at room temperature

- a. Chlorine b. Sulphur c. Mercury d. Silver

5. An element which is always lustrous, malleable and ductile

- a. non-metal b. metal c. metalloid d. gas

II. Fill in the blanks.

1. The smallest particle of matter that can exist by itself .

Ans: Atom

2. A compound containing one atom of carbon and two atoms of oxygen is .

Ans: Carbon-di-oxide

3.is the only non-metal conducts electricity.

Ans: Graphite

4. Elements are made up of kinds of atoms.

Ans: Same

5.of some elements are derived from Latin or Greek names of the elements.

Ans: Symbols

6. There are number of known elements.

Ans: 118

7. Elements are the form of pure substances .

Ans: Simplest

8. The first letter of an element always written in..... letter

Ans: Capital

9. Molecule containing more than three atoms are known as .

Ans: Poly Atomic

10. is the most abundant gas in the atmosphere.

Ans: Nitrogen

III. Fill in the Blanks.

1. Mercury: liquid at room temperature: : Oxygen:

Ans: Gas at room temperature .

2. Non metal conducting electricity:: : Metal conducting electricity: Copper

Ans: Graphite

3. Elements: combine to form compounds: : Compounds:

Ans: Combine to form Mixture

4. Atoms: fundamental particle of an element: :: fundamental particles of a compound.

Ans: Molecules

IV. True or False.

1. Two different elements may have similar atoms. **False**
2. Compounds and elements are pure substance. **True**
3. Atoms cannot exist alone; they can only exist as groups called molecules. **False**
4. NaCl represents one molecule of sodium chloride. **True**
5. Argon is mono atomic gas. **True**

4. Atomic Structure

I. Choose the appropriate answer.

1. The basic unit of matter is _____

- a. Element **b. Atom** c. Molecule d. Electron

2. The subatomic particle revolve around the nucleus is _____

- a. Atom b. Neutron **c. Electron** d. Proton

3. _____ is positively charged.

- a. Proton** b. Electron c. Molecule d. Neutron

4. The atomic number of an atom is _____

a. Number of neutrons

b. Number of protons

c. Total number of protons and neutrons

d. Number of atoms

5. _____ Nucleons comprises of

- a. Protons and electrons b. Neutrons and electrons
c. **Protons and neutrons** d. Neutrons and Positron

II. Fill in the blanks.

1. The smaller particles found in the atom is called _____.

Ans: Electrons

2. The nucleus has _____ and _____.

Ans: Positive and Negative Charge

3. The _____ revolve around the nucleus.

Ans: Electrons

4. If the valency of carbon is 4 and that of hydrogen is 1 , then the molecular formula of methane is_____.

Ans: CH₄

5. There are two electrons in the outermost orbit of the magnesium atom. Hence, the valency of magnesium is_____.

Ans: 2

III. Match the following:

1. Valency - Fe
2. Neutral Particle - Proton
3. Iron - Electrons in the outermost Orbit
4. Hydrogen - Neutron
5. Positively charged Particle - Monovalent

Ans: 34152

IV. True or False.

1. The basic unit of an element is molecule. **False**
2. The electrons are positively charged. **False**
3. An atom is electrically neutral. **True**
4. The nucleus is surrounded by protons. **False**

V. Complete the analogy.

1. Sun: Nucleus, planets: _____.

Ans: Electrons

2. Atomic number: _____, Mass number: number of protons and neutrons.

Ans: number of protons or electrons

3. K: Potassium, C: _____.

Ans: Carbon

5. Reproduction and Modification of Plants

I. Choose the appropriate answer.

1. Vegetative propagation by leaves takes place in

- a. Bryophyllum b. Fungi c. Virus d. Bacteria

2. Asexual reproduction in yeast is

- a. Spore formation b. Fragmentation c. Pollination d. Budding

3. Reproductive part of a plant is

- a. Root b. Stem c. Leaf d. Flower

4. Pollinators are

- a. Wind b. Water c. Insect d. All the above

5. Climbing roots are seen in

- a. Betel b. Black pepper c. Both of them d. None of them

II. Fill in the Blanks.

1. The male reproductive part of a flower is .

Ans: Androceium

2.is the basal swollen part of the Gynoecium.

Ans: Ovary

3. After fertilization the ovule becomes .

Ans: Seed

4. Breathing roots are seen in plants.

Ans: Avicennia

5. Onion and Garlic are example of .

Ans: Bulb

III. True (or) False.

1. A complete flower has four whorls. **True**

2. The transfer of pollen to the stigma is known as pollination. **True**

3. Conical shaped root is carrot. **True**

4. Ginger is an underground root. **False**

5. Leaves of Aloe vera are fleshy and store water. **True**

IV. Match the following:

1. Petal - Opuntia

2. Fern - Chrysanthemum

3. Phylloclade - Attracts insect

4. Hooks - Spore

5. Sucker - Bignonia

Ans: 34152

V Assertion and Reasoning types of Question.

1. Assertion – Pollination and fertilization in flowers, produces fruits and seeds.

Reasoning – After fertilization the ovary becomes fruit and ovule becomes seed.

a. Assertion is correct, Reasoning is incorrect.

b. Assertion is incorrect, Reasoning is correct.

c. Assertion is correct, Reasoning is correct.

d. Assertion is incorrect, Reasoning is incorrect.

2. Assertion – The example of conical root is carrot.

Reasoning – It is an adventitious root modification.

a. Assertion is incorrect, Reasoning is correct.

b. Assertion is incorrect, Reasoning is incorrect.

c. Assertion is correct, Reasoning is correct.

d. Assertion is correct, Reasoning is incorrect.

6. Health and Hygiene

I. Choose the appropriate answer.

1. Ravi has sound mind and physically fit body. Which refers to

a. Hygiene **b. Health** c. Cleanliness d. wealth

2. Sleep is not only good for body, but it is also good for

a. Enjoyment b. Relaxation **c. Mind** d. Environment

3. Our living place should be

a. Open b. Closed **c. Clean** d. Unclean / Untidy

4. The tobacco chewing causes

a. Anamia **b. Periodontitis** c. Tuberculosis d. Pneumonia

5. The first aid is to

- a. To save money
- b. To prevent scars
- c. To prevent the medical care
- d. To relieve the pain

II. Fill in the Blanks.

1. A group of people living together in a particular area is called _____

Ans: Community

2. I am green colour box with garbage. Who am I? _____

Ans: Bio degradable dust bin

3. Eyes are considered as _____ to the world.

Ans: Windows

4. The hair follicles produce _____ which keeps the hair smooth.

Ans: Oil

5. Tuberculosis is caused by the bacterium_____.

Ans: Mycobacterium Tuberculae

III. True or False

- 1. All food should be covered. **True**
- 2. Chicken pox also known as Leucoderma. **False**
- 3. Stomach ulcer is a non- communicable disease. **True**
- 4. Rabies is a fatal disease. **True**
- 5. First – degree burns damage the whole skin. **False**

IV. Match the following:

- 1. Rabie - Salmonella
- 2. Cholera - Yellow Urine
- 3. Tuberculosis - Cramps in legs
- 4. Hepatitis - Hydrophobia

5. Typhoid - Mycobacterium

Ans: 43521

V. Analogy.

1. First degree burn: epidermis :: second degree burn: _____

Ans: Dermis

2. Typhoid : Bacteria :: Hepatitis : _____

Ans: Virus

3. Tuberculosis : air :: Cholera : _____

Ans: Water

VI. Choose the correct alternative from the following.

1. Assertion (A) : Oral hygiene is good.

Reason (R) : Sound teeth and healthy gums with healthy surrounding tissues.

a) Both A and R are true

b) Both A and R are false

c) A is true but R is false.

d) A is false but R is true.

2. Assertion (A) : Chicken pox is a viral communicable disease.

Reason (R) : Characterized by rashes on the whole body, fever, head ache and tiredness.

a) Both A and R are true

b) Both A and R are false

c) A is true but R is false.

d) A is false but R is true.

7. Visual Communication

I. Choose the correct answer.

1. Which is the example for animation ?

- a) sound communication b) visual communication
c) vector communication d) **raster communication**

2. Who uses the Photoshop software more ?

- a) Teacher b) Doctor c) Painter d) **Photographer**

3. Which option is used in the Microsoft Photostory to upload the photos?

- a) **Begin a Story** b) Import Pictures c) Settings d) View your Story

4. Which technology shows the computer drawn pictures as real picture.

- a) Inkscape b) Photo Story c) **Virtual Reality** d) Adobe Illustrator

5. Which technology uses pixels to create pictures

- a) Vector b) **Raster** c) both d) None

6. Which software is used to create symbols

- a) Photoshop b) Illustrator c) **Vector Graphics** d) Photostory

II. Match the Following:

1. Animations - 3D
2. Raster - Visual Communication
3. Vector - Pixles
4. Virtual Reality - Microsoft Photostory
5. Video Story - Illustrator

Ans: 23514