

1. The only vitamin that contains cobalt is

- (a) B<sub>1</sub> (b) B<sub>2</sub> (c) B<sub>6</sub> (d) B<sub>12</sub>

Ans: (d)

**Note:** B<sub>12</sub>. Vitamin **B12**, also known as cobalamin, is an important water-soluble vitamin. It plays an essential role in the production of your red blood cells and DNA, as well as the proper functioning of your nervous system. Vitamin **B12** is naturally found in animal foods, including meats, fish, poultry, eggs and dairy.

Vitamin B12 deficiency may lead to a reduction in healthy red blood cells (anaemia). The nervous system may also be affected.

<https://www.healthline.com/nutrition/vitamin-b12-deficiency-symptoms#:~:text=Vitamin%20B12%2C%20also%20known%20as,%2C%20poultry%2C%20eggs%20and%20dairy.>

2. As the altitude increases, the temperatures decreases at the rate of 1°F for every

- (a) 200 feet (b) 150 feet (c) 400 feet (d) 450 feet

Ans: (b)

**Note:** Free convection, occurs when the environmental lapse rate (the rate of change of an atmospheric variable, such as temperature or density, with increasing altitude) of temperature decreases at a rate greater than 1°C per 100 metres (approximately 1 °F per 150 feet). This rate is called the adiabatic lapse...

3. Mother's milk is preferred to cow's milk because it contains

- (a) More lipids and less fats (b) Less lipids and more fats  
(c) More fats and more lipids (d) Less fats and less lipids

Ans: (d)

**Note:** In addition, the proteins, fats and calcium in whole **cow's milk** are more difficult for an infant to digest and absorb than the ones in **breast milk**.

Mother's milk has all nutrients that are required by the infant to achieve optimal growth, brain and cognitive development. It also helps fight infections and illnesses like diarrhoea, allergies and asthma.

4. Normal body temperature of an adult is

- a. 34.4°C b. 36.4°C c. 33.4°C d. 37.0°C (98.40°F)

Ans: d

5. Which of the following does not belong to the group of vitamin B complex?

- (a) Thiamine (b) Renitol (c) Riboflavin (d) Folic acid

Ans: (b)

**Note: Retinol**, also known as vitamin A<sub>1</sub>-alcohol, is a vitamin in the vitamin A family found in food and used as a dietary supplement. As a supplement it is ingested to treat and prevent vitamin A deficiency, especially that which results in xerophthalmia

6. Why does a stick partly immersed in water appear to be broken at the junction of water and air? This is due to

(a) Scattering of light                      (b) Reflection of light  
(c) **Refraction of light**                      (d) Both a and b above

Ans: (c)

7. Which of the following sequences represents correctly the different atmospheric layers from the earth's surface?

(a) Stratosphere, troposphere, tropopause, ionosphere  
(b) Ionosphere, tropopause, troposphere, stratosphere  
(c) **Troposphere, tropopause, stratosphere, ionosphere**  
(d) Stratosphere, troposphere, ionosphere, tropopause

Ans: (c)

8. The correct sequence of States in descending order of their area is

(a) **Rajasthan, Madhya Pradesh, Maharashtra, Uttar Pradesh**  
(b) Madhya Pradesh, Uttar Pradesh, Maharashtra, Rajasthan  
(c) Uttar Pradesh, Madhya Pradesh, Rajasthan, Maharashtra  
(d) Uttar Pradesh, Madhya Pradesh, Maharashtra, Rajasthan

Ans: (a)

9. At what temperature the readings in the Centigrade and Fahrenheit thermometers will be exactly same

a. 40°                      b. 0°                      c. **-40°**                      d. -34°

Ans: c

10. The distance of the planets from the sun in the increasing order is

(a) **Mercury, Venus, Earth, Mars**  
(b) Venus, Earth, Mars, Mercury  
(c) Earth, Mars, Mercury, Venus

(d) Mercury, Venus, Mars, Earth

Ans: (a)

**Note:** The eight planets that orbit the sun are (in order from the sun): Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune. A belt of asteroids (minor planets made of rock and metal) lies between Mars and Jupiter. These objects all orbit the sun in roughly circular orbits that lie in the same plane, the ecliptic (Pluto is an exception; it has an elliptical orbit tilted over  $17^\circ$  from the ecliptic).

Easy ways to remember the order of the planets (plus Pluto) are the mnemonics: "My Very Educated Mother Just Shown Us Nine". The first letter of each of these words represents a planet - in the correct order.

The largest planet is Jupiter. It is followed by Saturn, Uranus, Neptune, Earth, Venus, Mars, Mercury, and finally, tiny Pluto (the largest of the dwarf planets). Jupiter is so big that all the other planets could fit inside it.

### The Inner Planets vs. the Outer Planets

The inner planets (those planets that orbit close to the sun) are quite different from the outer planets (those planets that orbit far from the sun).

- The inner planets are: Mercury, Venus, Earth, and Mars. They are relatively small, composed mostly of rock, and have few or no moons.
- The outer planets include: Jupiter, Saturn, Uranus, Neptune, and Pluto (a dwarf planet). They are mostly huge, mostly gaseous, ringed, and have many moons (again, the exception is Pluto, the dwarf planet, which is small, rocky, and has four moons).

<https://www.enchantedlearning.com/subjects/astronomy/planets/>

11. The phenomenon of Aurora Borealis, the display of red and green lights in northern hemisphere is due to the radiations from

- (a) Ionosphere (b) Troposphere (c) Mesosphere (d) Stratosphere

Ans: (a)

**Note:** Ionosphere - The phenomenon of Aurora Borealis, the display of red and green lights in northern hemisphere is due to radiations from Ionosphere. The aurora borealis of the Northern Hemisphere is often called the northern lights, and the aurora australis of the Southern Hemisphere is known as the southern lights.

12. Spring tides occur on new moon and full moon days because on these days

- (a) Sun, moon and earth are in a straight line  
(b) Sun and earth are at right angles  
(c) Sun and moon are at right angles  
(d) Earth and moon are at right angles

Ans: (a)

Note: " Spring tides occur twice each lunar month all year long without regard to the season. Neap tides, which also occur twice a month, happen when the sun and moon are at right angles to each other.

Tides are long-period waves that roll around the planet as the ocean is "pulled" back and forth by the gravitational pull of the moon and the sun as these bodies interact with the Earth in their monthly and yearly orbits.

During full or new moons—which occur when the Earth, sun, and moon are nearly in alignment—average tidal ranges are slightly larger. This occurs twice each month. The moon appears new (dark) when it is directly between the Earth and the sun. The moon appears full when the Earth is between the moon and the sun. In both cases, the gravitational pull of the sun is "added" to the gravitational pull of the moon on Earth, causing the oceans to bulge a bit more than usual. This means that high tides are a little higher and low tides are a little lower than average. These are called **spring tides**, a common historical term that has nothing to do with the season of spring. Rather, the term is derived from the concept of the tide "springing forth." Spring tides occur twice each lunar month all year long, without regard to the season.

Seven days after a spring tide, the sun and moon are at right angles to each other. When this happens, the bulge of the ocean caused by the sun partially cancels out the bulge of the ocean caused by the moon. This produces moderate tides known as **neap tides**, meaning that high tides are a little lower and low tides are a little higher than average. Neap tides occur during the first and third quarter moon, when the moon appears "half full."

<https://oceanservice.noaa.gov/facts/springtide.html#:~:text=season%20of%20spring,-.Rather%2C%20the%20term%20is%20derived%20from%20the%20concept%20of%20the,right%20angles%20to%20each%20other.>

13. The lunar eclipse occurs when

(a) Moon is between the earth and the sun

(b) Earth is between the sun and the moon

(c) Sun is between the earth and the moon

(d) Earth is at right angle to the direction of the sun and the moon

Ans: (b)

**Note:** Sun position is always fixed.

14. During a solar eclipse, which of the following represents, the relative position of the Sun, Moon and Earth correctly?

(a) The Sun in between the Earth and the Moon

- (b) The Earth in between the Sun and the Moon
- (c) The Moon in between the Sun and the Earth
- (d) The Sun, Moon and Earth are not in a straight line

Ans: (c)

**Note:** Sun position is always fixed.

15. From north to south the correct sequence of the following sea ports is
- (a) Chennai, Tuticorin, Visakhapatnam, Paradip
- (b) Paradip, Chennai, Visakhapatnam, Tuticorin
- (c) Visakhapatnam, Paradip, Chennai, Tuticorin
- (d) Paradip, Visakhapatnam, Chennai, Tuticorin

Ans: (d)

**Note:** There are seven major port located on the east coast of India i.e. Tuticorin (Tamil Nadu), Chennai (Tamil Nadu), Ennore (Tamil Nadu), Visakhapatnam (Andhra Pradesh), Paradip (Odisha), Haldia & Kolkata (West Bengal), and Port Blair (Andaman & Nicobar Island).

There are six major ports located at west coast of India i.e. Kandla Port (Gujarat), Mumbai (Maharashtra), Navasheva (Jawaharlal Nehru Port), Murmagoa, New Mangalore (Karnataka), and Kochi (Kerala).

16. An increase of  $10^{\circ}$  on the Centigrade scale produces a corresponding increase on the Fahrenheit scale of
- a.  $10^{\circ}$       b.  $18^{\circ}$       c.  $22^{\circ}$       d.  $14^{\circ}$

Ans: b.

**Note: kelvin:** in the International System of Units, the base unit of thermodynamic temperature; 1/273.16 of the thermodynamic temperature of the triple point of water; symbolized as K

- **absolute zero:** The coldest possible temperature: zero on the Kelvin scale and approximately -273.15°C and -459.67°F. The total absence of heat; the temperature at which motion of all molecules would cease.
- **standard atmosphere:** an international reference pressure defined as 101.325 kPa and formerly used as a unit of pressure
- The Fahrenheit system puts the boiling and freezing points of water exactly 180 degrees apart. Therefore, a degree on the Fahrenheit scale is 1/180 of the interval between the freezing point and the boiling point.

$$T_{\text{Celsius}} = T_{\text{Kelvin}} - 273.15 \quad T_{\text{Celsius}} = T_{\text{Kelvin}} - 273.15$$

- **brine:** a solution of salt (usually sodium chloride) in water
- The Kelvin scale is used extensively in scientific work because a number of physical quantities, such as the volume of an ideal gas, are directly related to absolute temperature.

#### KEY TERMS

**absolute zero:** The coldest possible temperature: zero on the Kelvin scale and approximately -273.15°C and -459.67°F. The total absence of heat; the temperature at which motion of all molecules would cease.

- **Triple point:** The unique temperature and pressure at which the solid, liquid and gas phases of a substance are all in equilibrium.

<https://courses.lumenlearning.com/boundless-physics/chapter/temperature-and-temperature-scales/>

17. Vitamin K helps in

a. Clotting of blood

b. Development of bones

c. Keeps away sterility

d. None of these

Ans: a.

**Note: Vitamin K helps** to make various proteins that are needed for blood clotting and the building of bones. Prothrombin is a **vitamin K**-dependent protein directly involved with blood clotting. Osteocalcin is another protein that requires **vitamin K** to produce healthy bone tissue.

The body needs vitamin K to produce prothrombin, a protein and clotting factor that is important in blood clotting and bone metabolism. People who use blood-thinning medications, such as warfarin, or Coumadin, should not start consuming additional vitamin K without first asking a doctor.

Deficiency is rare, but, in severe cases, it can increase clotting time, leading to hemorrhage and excessive bleeding.

Vitamin K1, or phyloquinone, comes from plants. It is the main type of dietary vitamin K. A lesser source is vitamin K2, or menaquinone, which occurs in some animal-based and fermented foods.

<https://www.medicalnewstoday.com/articles/219867>

18. With reference to solar system, choose the incorrect combination

- |                   |           |                               |         |
|-------------------|-----------|-------------------------------|---------|
| a. Largest Planet | - Jupiter | b. Brightest Planet -         | Venus   |
| c. Fastest Planet | - Earth   | d. Nearest Planet to the Sun- | Mercury |

Ans: c

19. Which one of the following elements ores is not correctly matched?

- |            |             |              |              |
|------------|-------------|--------------|--------------|
| a. Bauxite | - Aluminium | b. Haematite | - Iron       |
| c. Galena  | - Lead      | d. Monazite  | - Anthracite |

Ans: d

**Note:** Monazite is a primarily reddish-brown phosphate mineral that contains rare-earth elements.

20. Which one of the following pairs of unit and the parameter being measured is not correctly matched?

- |                                             |                           |
|---------------------------------------------|---------------------------|
| a. Cusec- Rate of heat flow                 | b. Byte - Computer memory |
| c. Richter scale - Intensity of earthquakes | d. Pascal - Pressure      |

Ans: a

**Note:** Cusec is a measure of the rate of flow still commonly used by the irrigation department. 1 cusec is one cubic foot of water flow per second. It translates into 28.32 litre of water per second.

21. Choose the incorrect combination

- |                                           |
|-------------------------------------------|
| a. Baking soda - Sodium bicarbonate       |
| b. Bleaching powder - Sodium hypochlorite |
| c. Limestone - Calcium carbonate          |
| d. Dry ice - Solid carbon monoxide        |

Ans: b

**Note:** Bleaching powder is a pale yellowish powder existing with a strong smell of chlorine. It is soluble in water but due to the presence of impurities, we never observe a clear solution. Its chemical formula is  $\text{CaOCl}_2$  with its chemical name as Calcium hypochlorite

22. All of the following diseases are caused by viruses, except

- a. AIDS                      b. Influenza                      c. Typhoid                      d. Mumps

Ans: c

**Note:** Jaundice is a condition in which the skin, whites of the eyes and mucous membranes turn yellow because of a high level of bilirubin, a yellow-orange bile pigment. Jaundice has many causes, including hepatitis, gallstones and tumors. In adults, jaundice usually doesn't need to be treated

**Influenza**, commonly known as "the flu", is an infectious disease caused by an influenza virus. Symptoms can be mild to severe. The most common symptoms include: high fever, runny nose, sore throat, muscle and joint pain, headache, coughing, and feeling tired

- Usually, Salmonellae typhi bacteria causes typhoid fever.

**Mumps** is a viral infection that primarily affects saliva-producing (salivary) glands that are located near your ears. Mumps can cause swelling in one or both of these glands.

23. Let the speed of sound in air, water and steel be  $V_a$ ,  $V_w$ , and  $V_i$  respectively. Which is the correct order of decreasing velocity of sound in these media?

- a.  $V_a > V_w > V_i$                       b.  $V_w > V_i > V_a$   
c.  $V_i > V_a > V_w$                       d.  $V_i > V_w > V_a$

Ans: a

24. Chain reaction in a nuclear reactor is controlled by

- a. Moderator                      b. Active hydrogen                      c. Isotope                      d. Control rods

Ans: d

25. For an object thrown from the earth, the minimum speed required to escape from the gravitational pull is

- a. 11.1 km/s                      b. 11.2 km/s                      c. 11.3 km/s                      d. 11.4 km/s

Ans: b

26. With reference to solar system, choose the incorrect combination

- a. Largest Planet - Jupiter                      b. Brightest Planet - Venus  
c. Fastest Planet - Earth                      d. Nearest Planet - Mercury



Ans: c

**Note:** Mercury is the smallest and fastest planet in the solar system. It is also the closest planet to the sun. It is named after the Roman messenger god Mercury, the fastest Roman god. The planet Mercury was known by ancient people thousands of years ago. It has no moons.

27. The top atmosphere of the Earth directly reflects back into space nearly what part of the total amount of sun's energy to it?

- (a) One-tenth                      (b) One-fifth                      (c) **One-third**                      (d) One-half

Ans: (c)

**Note:** The Earth absorbs most of the energy reaching its surface, a small fraction is reflected. In total approximately 70% of incoming radiation is absorbed by the atmosphere and the Earth's surface while around 30% is reflected back to space and does not heat the surface.

28. Epiglottis helps in preventing

- (a) **Food from entering the larynx**  
(b) Air from entering the larynx  
(c) Air from entering the oesophagus  
(d) Food from entering the oesophagus

Ans: (a)

**Note:** It works as a valve to prevent food and liquids from entering your windpipe when you eat and drink.

29. Who discovered the blood groups of man?

- (a) Edward Jenner                      (b) Larven  
(c) **Karl Landsteiner**                      (d) William Harvey

Ans: (c)

**Note:** After discovery of the first human blood groups (ABO) by **Karl Landsteiner** in 1901 (5), gradually from 1927, other blood groups were also discovered and reported

30. Nobel prize for decoding and projecting the genetic code was given to

- (a) **Hargobind Khurana**                      (b) Watson and Crick  
(c) Strasburger                      (d) None of the above

Ans: (a)

**Note:** Khorana, together with Robert Holley (structure of tRNA) and Marshall Nirenberg, **received the Nobel Prize** in Physiology or Medicine in 1968 for their work on deciphering the **genetic code**

31. Sparkling red colour after the blast of fire crackers is due to the presence of

- (a) Strontium (b) Sodium  
(c) Sulphur (d) Magnesium

Ans: (a)

**Note:** Sparkling red colour after the blast of fire crackers is due to the presence of Strontium. Chemical ingredients of fireworks are chosen to produce specific colors. Barium compounds produce green colors when heated, copper salts produce green and blue flames, sodium salts are yellow in flame, lithium compounds produce red colors, magnesium metal produces brilliant white light when burned, and strontium compounds produce brilliant red colors. Salts used contain both metallic cations and nonmetallic anions. Anions such as chlorates, perchlorates, and nitrates also contribute oxidizing power to the chemical mixture.

Chemical Element	Color Produced
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Sodium	Yellow
--------	--------

Barium	Green
--------	-------

Strontium	red
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Copper	Blue
--------	------

<http://www.chemistryexplained.com/Fe-Ge/Fireworks.html#ixzz6i5WrbRnH>

<http://www.chemistryexplained.com/Fe-Ge/Fireworks.html>

32. The chief ingredient of the mosquito repellent cream is derived from

- (a) Tulsi (b) Neem (c) Lemon (d) Rice Bran

Ans: (b)

**Note:** This material is an herbal extract **derived** from the citronella plant, an Asian grass

33. Very small time intervals are accurately measured by the

- (a) Pulsars (b) White dwarfs (c) Atomic clocks (d) Quartz clocks

Ans: (c)

**Note:** Atomic clocks are the most accurate time and frequency standards known, and are used as primary standards for international time distribution services, to control the wave frequency of television broadcasts, and in global navigation satellite systems such as GPS

34. Atmospheric pressure exerted on earth is due to the

- (a) Rotation of earth (b) Revolution of earth  
(c) Gravitational pull on air mass (d) Uneven heating of earth

Ans: (c)

**Note:** Atmospheric pressure is commonly measured with a barometer. In a barometer, a column of mercury in a glass tube rises or falls as the weight of the atmosphere changes. Meteorologists describe the atmospheric pressure by how high the mercury rises.

An atmosphere (atm) is a unit of measurement equal to the average air pressure at sea level at a temperature of 15°C (59°F). One atmosphere is 1,013 millibar, or 760 millimeter (29.92 inches) of mercury. Atmospheric pressure drops as altitude increases. As the pressure decreases, the amount of oxygen available to breathe also decreases. At very high altitudes, atmospheric pressure and available oxygen get so low that people can become sick and even die. Mountain climbers use bottled oxygen when they ascend very high peaks. They also take time to get used to the altitude because quickly moving from higher pressure to lower pressure can cause decompression sickness. Decompression sickness, also called "the bends", is also a problem for scuba divers who come to the surface too quickly.

Aircraft create artificial pressure in the cabin so passengers remain comfortable while flying.

Atmospheric pressure is an indicator of weather. When a low-pressure system moves into an area, it usually leads to cloudiness, wind, and precipitation. High-pressure systems usually lead to fair, calm weather.

<https://www.nationalgeographic.org/encyclopedia/atmospheric-pressure/#:~:text=force%20per%20unit%20area%20exerted,gravity%20pulls%20it%20to%20Earth.&text=an%20instrument%20that%20measures%20atmospheric%20pressure.&text=scale%20for%20measuring%20surface%20temperature,of%20water%20is%20100%20degrees>

35. Preservative used for strawberries and plum squashes is  
(a) Sodium chloride (b) Sodium benzoate  
(c) Sodium nitrate (d) Ammonium sulphate

Ans: (b)

36. All the veins carry de-oxygenated blood, except  
(a) Hepatic vein (b) Portal vein  
(c) Pulmonary vein (d) Subclavian vein

Ans: (c)

**Note:** Veins carry deoxygenated blood towards to heart from tissue, with the exception of the **pulmonary veins**, which carry oxygenated blood from the lungs to the heart.

37. Which of the following satellites helps telecast TV network programmes all over the country?

- (a) Aryabhata      (b) Apple      (c) INSAT-1B      (d) Rohini

Ans: (c)

**Note:** INSAT has been a major catalyst for the expansion of television coverage in India. Satellite television now covers 100% area and 100% population. The terrestrial coverage is over 81 percent of the Indian land mass and over 92 percent of the population.

38. Epidemiology means

- (a) Study of epidemic disease      (b) Study of deficiency disease  
(c) Study of medicine      (d) None of these

Ans: (a)

**Note:** Epidemiology is the study and analysis of the distribution, patterns and determinants of health and disease conditions in defined populations. It is a cornerstone of public health, and shapes policy decisions and evidence-based practice by identifying risk factors for disease and targets for preventive healthcare. A pandemic is defined as the “worldwide spread of a new disease.”

39. Railways was introduced to India by

- (a) Lord Curzon      (b) Lord Bentinck      (c) Lord Cornwallis      (d) Lord Dalhousie

Ans: (d)

**Note:** 16 April 1853 - On this date, the country's first passenger **train** set off on a 34km journey between Bombay's Bori Bunder station and Thane.

40. In a cell which of the following is the site of protein synthesis?

- (a) Mitochondria      (b) Endoplasmic Reticulum  
(c) Ribosomes      (d) Nucleus

Ans: (c)

**Note:** Ribosomes. Ribosomes are the **sites** in a cell in which **protein synthesis** takes **place**.

41. The saliva helps in the digestion of

- (a) Starch      (b) Proteins      (c) Fibres      (d) Fats

Ans: (a)

**Note:** **Saliva** contains special enzymes that **help digest** the starches in your food. An enzyme called amylase breaks down starches (complex carbohydrates) into sugars, which your body can more easily absorb. **Saliva** also contains an enzyme called lingual lipase, which breaks down fats

42. The world environment day is celebrated on

- (a) 7 April                      (b) 5 June                      (c) 16 June                      (d) 6 August

Ans: (b)

**Note:** The UN General Assembly designates 5 June as World Environment Day, marking the first day of the Stockholm Conference on the Human Environment. Another resolution, adopted by the General Assembly the same day, leads to the creation of UN Environment. Since its beginning in 1974, World Environment Day has developed into a global platform for raising awareness and taking action on urgent issues from marine pollution and global warming to sustainable consumption and wildlife crime.

43. At which of the following ports did Vasco de Gama land in India at the close of the 15th century?

- (a) Bombay                      (b) Calicut                      (c) Chitagong                      (d) Pondicherry

Ans: (b)

**Note:** Portuguese explorer **Vasco de Gama** becomes the first European to reach **India** via the Atlantic Ocean when he arrives at Calicut on the Malabar Coast

44. "Bhatnagar Awards" are associated with
- (a) Science and Technology                      (b) Music and Drama
- (c) Fine Arts                      (d) Peace

**Note:** The **Shanti Swarup Bhatnagar Prize for Science and Technology (SSB)** is a science award in India given annually by the Council of Scientific and Industrial Research (CSIR) for notable and outstanding research, applied or fundamental, in biology, chemistry, environmental science, engineering, mathematics, medicine and Physics.

Any citizen of India engaged in research in any field of science and technology up to the age of 45 years is eligible for the prize. The prize is awarded on the basis of contributions made through work done in India only during the five years preceding the year of the prize.

45. What is the currency of Japan?
- (a) Yuan                      (b) Dollar                      (c) Yen                      (d) Rouble

Ans: (c)

46. The Home Rule Movement in India was started by
- (a) Annie Besant, in Chennai and B G Tilak in Maharashtra
- (b) Annie Besant and Gokhale
- (c) Mahatma Gandhi and Motilal Nehru

(d) S.N. Banerjee and W.C. Bonerjee

Ans: (a)

**Note:** B G Tilak found the first **home rule** league at the Bombay provincial congress at Belgaum in April 1916. Then after this **Annie Besant founded** second league at Adyar, Chennai (old name Madras) Annie Besant launched the Home Rule League in September 1916 at Madras.

The term, borrowed from a similar movement in Ireland, referred to the efforts of Indian nationalists to achieve self-rule from the British Indian government.

47. One cubic centimetre of brass, when fully immersed in water ( density  $1 \text{ gram/cm}^3$ ) weighs 7.6 gram. What is the density of the brass?

(a)  $1.0 \text{ gram/cm}^3$

(b)  $6.6 \text{ gram/cm}^3$

(c)  $7.6 \text{ gram/cm}^3$

(d)  $8.6 \text{ gram/cm}^3$

Ans: (d) For fully immersed body:

Note: **Actual Mass = mass in immersed fluid + numerical value of density of fluid**

48. Which of the following is used as a food preservative?

(a) **Sodium benzoate**

(b) Sodium perborate

(c) Citric acid

(d) None of the above

Ans: (a)

49. When did India conduct its first Nuclear explosion at Pokhran, Rajasthan?

(a) April 10, 1974

(b) April 18, 1974

(c) May 10, 1974

(d) **May 18, 1974**

Ans: (d)

50. Which of the following is not an alloy?

(a) Bronze

(b) **Zinc**

(c) Brass

(d) Steel

Ans: (b). Zinc is an element. (Bronze is an alloy of copper and tin, brass is copper and zinc.)