Multiple Choice Questions

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Science - I

1.

Gravitation

(1) The gravitational force of attraction between two objects is given by .

(a) $F \propto \frac{m_1 m_2}{d^2}$ (b) $F \propto \frac{d^2}{m_1 m_2}$

(c) $F \propto \frac{m_1 m_2}{\sqrt{d^2}}$ (d) $F \propto \frac{m_1 m_2}{d^3}$

(2) If the distance between two bodies becomes half, the gravitational force between them becomes

(a) half (b) one forth (c) 4 times (d) 2 times

(3) If the distance between two objects increases 5 times, the gravitational force becomes ..... times.

(a) 5 (b) 15 (c) 1/25 (d) 25

(4) The gravitational force on the surface of the Moon is ..... times than that on the surface of the Earth.

(a) five (b) one fifth (c) one sixth (d) six

(5) The gravitational force causes ..... .

(a) Tides (b) Circular motion of moon

(c) None of these (d) Both a and b

(6) The Earth attracts moon with a force of 1020N. The moon attracts Earth with a force of .....

(a) less than 10^{20} N (b) 10^{20} N

(c) greater than 10^{20} N (d) 10^{-20} N

(7) The SI unit of gravitational constant is ..... .

(a) Nm^2/kg^2 (b) Nkg^2/m^2

(c) m/s^2 (d) $N\,cm^2/g^2$

(8) Acceleration is a quantity.
(a) scalar (b) fundamental (c) unit (d) vector

(9) The value of acceleration due to gravity at the height 'h' from the ground is ..... .
(a) $g = \frac{GM}{R+h}$ (b) $g = \frac{GM}{\sqrt{R+h}}$
(c) $g = \frac{GM}{(R+h)^2}$ (d) $g = GM\ (R+h)^2$

(10) The value of 'g' is maximum at poles and it is ..... .
(a) 9.72 m/s (b) 9.83 m/s^2
(c) 9.83 m/s (d) 9.72 m/s^2

(11) The value of 'g' due to Earth is zero at ..... .
(a) Centre of Earth (b) Poles
(c) Infinite distance (d) Both a and c

(12) When an object is thrown upward, the force of gravity ..... .
(a) Is opposite to the direction of motion
(b) Is in the same direction as that of motion
(c) becomes zero at higher point
(d) Increase as it rise up

(13) The value of 'g' at the depth from the ground goes on .
(a) increasing (b) fluctuating (c) decreasing (d) varying

(14) As the height of the object from the surface of the Earth increases, value of 'g' becomes ..... .
(a) more (b) less (c) equal (d) can't say

(15) The mass of objects at any surface on the Earth.
(a) remains constant (b) is non-uniform
(c) changes (d) increases

(16) According to Newton's first law, if mass is more, then the inertia of the body is ..... .
(a) less (b) very less (c) more (d) can't say

(17) The mass of the Earth is ..... kg.
(a) 6×10^6 (b) 6×10^{24} (c) 6.4×10^6 (d) 6.4×10^{24}

(18) The radius of the Earth is ..... m .
(a) 6.4×10^6 (b) 4.6×10^6 (c) $4.6 \times .10^{-6}$ (d) 6×10^{24}

(19) The weight of body gradually decreases from ..... .
(a) equator to poles (b) poles to equator
(c) pole to pole (d) height to surface

(20) A body of mass 1 kg is attracted by the Earth with a force which is equal to ..... .
(a) 9.8 N (b) 6.67×10^{-11} (c) 1 N (d) 9.8 m/s

(21) The gravitational potential energy at the height of 'h' from the ground is ..... .
(a) $\frac{-GMm}{R+h}$ (b) $\frac{-GMm_1}{R^2+h}$ (c) $\frac{GMm_1}{R^2+h^2}$ (d) $\frac{GMm_1}{R^2+h}$

(22) The orbit of a planet is an ellipse with the Sun at one of the ..... .
(a) foci (b) centre (c) middle (d) surface

(23) The straight line joining the planet and the Sun sweeps equal ..... in equal interval of time.
(a) volume (b) angle (c) density (d) area

(24) The square of time period of revolution around the Sun is to the cube of the mean distance of the planet from the Sun.
(a) inversely proportional (b) directly proportional
(c) not proportional (d) depend

(25) The periodic time of a planet is 'T' and the mean distance of the planet from the Sun is 'r', then according to Kepler's third law .
(a) $T^2 \propto r^3$ (b) $T \propto r^3$ (c) $T^2 \propto r$ (d) $T^3 \propto r^2$

ANSWERS:

(1) $F \propto \frac{m_1 m_2}{d^2}$ (2) 4 times (3) 1/25 (4) one sixth
(5) both a and b (6) 10^{20} N (7) Nm^2/kg^2 (8) vector
(9) $g = \frac{GM}{(R+h)^2}$ (10) 9.83 m/s² (11) Both a and c
(12) Is opposite to the direction of motion
(13) decreasing (14) less (15) remains constant
(16) more (17) 6×10^{24} (18) 6.4×10^6
(19) poles to equator (20) 9.8 N (21) $\frac{-GMm}{R+h}$ (22) foci
(23) area (24) directly proportional (25) $T^2 \propto r^3$

2.

Periodic Classification of Elements

*(1) The number of electrons in the outermost shell of alkali metals is
(a) 1 (b) 2 (c) 3 (d) 7

*(2) Alkáline earth metals have valency 2. This means that their position in the Modern Periodic table is in
(a) Group 2 (b) Group 16 (c) Period 2 (d) d-block

*(3) Molecular formula of the chloride of an element X is XCl. This compound is a solid having high melting point. Which of the following elements be present in the same group as X.
(a) Na (b) Mg (c) Al (d) Si

*(4) In which block of the Modern Periodic table are the non-metals found?
(a) s-block (b) p-block (c) d-block (d) f-block

(5) Triad does not follow Dobereiner's law of triad.
(a) Li, Na, K (b) Ca, Sr, Ba (c) Mg, Ca, Sr (d) Cl, Br, I

(6) resembles alkali metals as well as halogens.
(a) Lithium (b) Sodium (c) Hydrogen (d) Silicon

(7) First period consists of elements.
(a) 1 (b) 8 (c) 2 (d) 4

(8) Electronic configuration of Mg is .....
(a) (2, 8, 4) (b) (2, 8, 1) (c) (2, 8, 3) (d) (2, 8, 2)

(9) ..... is in liquid state at room temperature.
(a) Fluorine (b) Chlorine (c) Bromine (d) Iodine

(10) Atomic radius of Lithium is ..... pm.
(a) 41 (b) 151 (c) 152 (d) 157

(11)Where would you locate the element with electronic configuration 2, 8 in the Modern Periodic Table?
(a) Group 8 (b) Group 2 (c) Group 18 (d) Group 10

(12) Carbon belongs to the second period and Group 14. Silicon belongs to the third period and Group 14. If atomic number of carbon is 6, the atomic number of silicon is
(a) 7 (b) 14 (c) 24 (d) 16

(13) Pick out the chemically most reactive elements from the given triads. Li, Na, K F, Cl, Br
(a) Li and F (b) Li and Br (c) K and F (d) K and Br

(14) The elements A, B and C belong to groups 1, 14 and 17 respectively of the Periodic Table. Which two elements will form ionic compounds?
(a) A and B (b) A and C (c) B and C (d) None

(15) Name the neutral atom in the Periodic Table which has the same number of electrons as K^+ and Cl^-.
(a) Helium (b) Argon (c) Neon (d) Krypton

(16) An element X combines with oxygen to form an oxide XO. This oxide is electrically con¬ducting. Write the formula of the compound formed when X reacts with chlorine.
(a) XCl_3 (b) XCl (c) XCl_2 (d) XCl_5

(17) An element X has mass number 40 and contains 21 neutrons in its atom. To which group of the Periodic Table does it belong?
(a) Group 1 (b) Group 4 (c) Group 2 (d) Group 3

(18) An element 'A' belongs to the third period and group 16 of the Periodic Table. Find out the valency of A.
(a) 6 (b) 2 (c) 1 (d) 3

(19) Which of the following set of elements is written in order of their increasing metallic character?
(a) Na Li K (b) C Q N (c) Mg Al Si (d) Be Mg Ca

(20) The atom of an element has electronic con-figuration 2, 8, 7. To which of the following elements would it be chemically similar?
(a) N(7) (b) P(15) (c) Na(11) (d) F (9)

ANSWERS:

(1) 1	(2) Group 2	(3) Na	(4) p-block
(5) Mg, Ca, Sr	(6) Hydrogen	(7) 2	(8) (2, 8, 2)
(9) Bromine	(10) 152	(11) Group 18	(12) 14
(13) K and F	(14) A and C	(15) Argon	(16) XCl_2
(17) Group 1	(18) 2	(19) Be Mg Ca	(20) F (9)

3.

Chemical Reactions and Equations

(1) A chemical reaction involves in .
  (a) only breaking of bonds.
  (b) only formation of bonds.
  (c) Both breaking and formation of bonds.
  (d) None of these.

(2) A balanced chemical equation always obeys.
  (a) Law of conservation of Mass
  (b) Law of thermal equilibrium
  (c) Law of conservation of energy
  (d) All of the above

(3) Oily food kept out for few days gives a bad taste and a bad smell because of .
  (a) Corrosion
  (b) Displacement
  (c) Heating
  (d) Rancidity

(4) The sign ↓ indicates.
  (a) release of gas
  (b) dissolution of gas
  (c) formation of precipitate
  (d) lowering of temperature

(5) What is rust?
  (a) Sodium oxide
  (b) Iron oxide
  (c) Copper oxide
  (d) Silver oxide

(6) Because of the formation of which of the following,lime water turns milky when carbon dioxide is passed in it?
  (a) Calcium Carbonate
  (b) Calcium bicarbonate
  (c) Calcium hydroxide
  (d) Sodium Carbonate

(7) Which of the following is formed when Sodium hydroxide reacts with hydrochloric acid?
(a) Calcium Chloride (b) Hydrogen Chloride
(c) Sodium hydroxide (d) Sodium Chloride

(8) ..... is a physical change.
(a) Ice changes into water (b) Milk is set into curd
(c) Ripening of fruit (d) Respiration process

(9) When sulphuric acid is poured over zinc, which of the following gas is formed?
(a) Sulphur dioxide (b) Hydrogen
(c) Oxygen (d) Zinc dioxide

(10) Oxidation is a process which involves
(a) addition of oxygen (b) addition of hydrogen
(c) removal of oxygen (d) removal of hydrogen

(11) Magnesium ribbon is rubbed before burning because it has a coating of.....
(a) basic magnesium carbonate
(b) basic magnesium oxide
(c) basic magnesium sulphide
(d) basic magnesium chloride

(12) The process of reduction involves
(a) addition of oxygen (b) addition of hydrogen
(c) removal of oxygen (d) removal of hydrogen

(13) Give the ratio in which hydrogen and oxygen are present in water by volume.
(a) 1:2 (b) 1:1 (c) 2:1 (d) 1:8

(14) A substance 'X' is used in white-washing and is obtained by heating limestone in the absence of air. Identify 'X'.
(a) $CaOCl_2$ (b) $Ca(OH)_2$ (c) CaO (d) $CaCO_3$

(15) When Ag is exposed to air it gets a black coating of .....
(a) $AgNO_3$ (b) Ag_2S (c) Ag_2O (d) Ag_2CO_3

(16) Which of the following is an endothermic process?
(a) Dilution of sulphuric acid
(b) Sublimation of dry ice
(c) Condensation of water vapours
(d) Respiration in human beings

(17) Select the oxidising agent for the following reaction:
$H_2S + I_2 > 2HI + S$
(a) I_2 (b) H_2S (C) HI (d) S

(18) A substance added to food containing fats and oils is called:
(a) Oxidant (b) Rancid
(c) Coolant (d) Antioxidant

(19) The condition produced by aerial oxidation of fats and oils in foods marked by unpleasant smell and taste is called:
(a) antioxidation (b) reduction
(c) rancidity (d) corrosion

(20) Electrolysis of water is a decomposition reaction. The mole ratio of hydrogen and oxygen gases liberated during electrolysis of water is:
(a) 1 : 1 (b) 2:1 (c) 4:1 (d) 1:2

ANSWERS:
(1) Both breaking and formation of bonds.
(2) Law of conservation of Mass (3) Rancidity
(4) formation of precipitate (5) Iron oxide
(6) Calcium carbonate (7) Sodium chloride
(8) Ice changes into water (9) Hydrogen
(10) addition of oxygen (11) basic magnesium carbonate
(12) addition of hydrogen (13) 1:2 (14) $CaOCl_2$
(15) Ag_2S (16) Sublimation of dry ice (17) I_2
(18) Antioxidant (19) rancidity (20) 2:1

4.

Effects of Electric Current

(1) The SI unit of electric charge is
(a) volt (b) coulomb (c) ampere (d) ohm

(2) In SI system, the unit of electric current is
(a) ohm (b) volt (c) ampere (d) coulomb

(3) The magnetic field produced by a current carrying circular loop depends upon
(a) electric current (b) potential difference
(c) radius of loop (d) resistance

(4) The direction of magnetic field due to electric current is decided by
(a) Right hand thumb rule
(b) Fleming's left hand rule
(c) Fleming's right hand rule
(d) None of the above

(5) The device which converts mechanical energy into electrical energy is called
(a) Electric charge (b) Electric generator
(c) Electric fuse (d) Electric motor

(6) 1 mA =
(a) 10^{-6}A (b) 10^{6}A (c) 10^{-3}A (d) 10^{3}A

(7) 1 watt =
(a) 1 joule/1 second (b) 1000 J/s
(c) 1 calorie/1 second (d) 1 joule.second

(8) Electric power (P) =
(a) V.t/Q (b) Q.t/V (c) V.Q.t (d) V.Q/t

(9) 1 kWhr =
(a) 36×10^{6}J (b) 3.6×10^{6}J
(c) 3.6×10^{9}J (d) 36×10^{9}J

(10) The deflection of the pointer of is on either side of zero mark.
(a) Voltmeter (b) Ammeter
(c) Galvanometer (d) Thermometer

(11) The insulation colour of earth wire is
(a) blue (b) red (c) green (d) white.

(12) In India the potential difference between live wire and neutral wire is
(a) 240 V (b) 250 V (c) 280 V (d) 220 V.

(13) Which device produces the electric current?
(a) generator (b) galvanometer
(c) ammeter (d) motor

(14) By which instrument, the presence of magnetic field be determined?
(a) Magnetic Needle (b) Ammeter
(c) Galvanometer (d) Voltmeter

(15) A current through a horizontal power line flows from south to North direction. The direction of magnetic field line 0.5m above it is
(a) North (b) South (c) West (d) East

(16) When current is parallel to magnetic field, then force experience by the current carrying conductor placed in uniform magnetic field is
(a) Twice to that when angle is 60°
(b) Thrice to that when angle is 60°
(c) zero
(d) infinite

(17) Direction of rotation of a coil in electric motor is determined By .....
(a) fleming's right hand rule
(b) fleming's left hand rule
(c) faraday law of electromagnetic inductors
(d) None of above

ANSWERS.

(1) coulomb (2) ampere (3) electric current
(4) Right hand thumb rule (5) Electric generator
(6) 10^{-3}A (7) 1 joule / 1 second
(8) V.Q/t (9) 3.6×10^{6}J (10) Galvanometer
(11) green (12) 220V (13) generator
(14) voltmeter (15) North
(16) Twice to that when angle is 60°
(17) fleming's left hand rule

5. Heat

(1) The specific heat capacity of is maximum.
(a) Mercury (b) Copper (c) Water (d) Iron

(2) If temperature of water increases from 1°C to 3°C, the density of water .
(a) remains the same (b) decreases
(c) increases (d) fluctuates

(3) If the humidity of air is , we feel the air is humid.
(a) 60% (b) more than 60%
(c) less than 60% (d) 100%

(4) Aquatic plants and animals can survive in cold region because of.....
(a) humidity (b) dew point
(c) heat capacity
(d) Anomalous behaviour of water

(5) Ice is such a substance which
(a) expands on heating (b) contracts on heating
(c) contracts on cooling (d) remains unchanged

(6) If temperature of water is lowered from 4°C to 3°C; its volume
(a) increases (b) decreases
(c) remains the same (d) fluctuates

(7) The specific heat capacity is measured in C.G.S. system in
(a) joule/kg°C (b) kcal (c) cal/g°C (d) cal

(8) At dew point, the relative humidity is
(a) 100% (b) 10% (c) 60% (d) 50%

(9) If the pressure is applied on ice, its melting point
(a) decreases (b) increases
(c) remains the same (d) fluctuates

(10) The specific heat capacity of water is cal/g°C
(a) 10 (b) 1.0 (c) 1.5 (d) 0.5

ANSWERS:
(1) water (2) increases (3) more than 60%
(4) Anomalous behaviour of water (5) contracts on heating
(6) increases (7) cal/g°C (8) 100% (9) decreases
(10) 1.0

6.

Refraction of Light

*(1) What is the reason for the twinkling of stars?
(a) Explosions occuring in stars from time to time
(b) Absorption of light in the earth's atmosphere
(c) Motion of stars
(d) Changing refractive index of the atmospheric gases

*(2) If the refractive index of glass with respect to air is 3 2 , then the refractive index of air with respect to glass ..... .
(a) $\frac{1}{2}$ (b) 3 (c) $\frac{1}{3}$ (d) $\frac{2}{3}$

*(3) We can see the sun even when it is little below the horizon because of ..... .
(a) Reflection of light (b) Refraction of light
(c) Dispersion of light (d) Absorption of light

(4) When light ray passes from air to glass slab then it ..... .
(a) bends towards normal (b) bends away
(c) does not bend (d) turn back

(5) When light passes through glass slab, the incident ray and emergent ray are ..... .
(a) intersecting (b) parallel
(c) making angle (d) touching

(6) When light ray travels from denser medium to rarer, then it ..... .
(a) bends towards normal
(b) bends away from normal
(c) goes undeviated
(d) deviates randomly

(7) The refractive index of diamond is ..... .
(a) 2.24 (b) 2.22 (c) 4.24 (d) 2.42

(8) The velocity of light in air is ..... .m/s.
(a) 3×10^{10} (b) 3×10^{8} (c) 1.5×10^{8} (d) 0.3×10^{8}

(9) Rakesh performs the experiments on tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. He observes that in all cases
(a) $\angle i > \angle r$ but $\angle i = \angle e$
(b) $\angle i < \angle r$ but $\angle i = \angle e$
(c) $\angle i > \angle e$ but $\angle i = \angle r$
(d) $\angle i < \angle e$ but $\angle i = \angle r$

(10) When a ray of light travels from air to glass and strikes the surface of separation at 90°, then it..... .
(a) bends towards the normal
(b) bends away from the normal
(c) passes without bending
(d) reflects to air

(11) A ray of light incident from a denser medium passes through a rarer medium in a straight line. What should be angle of incidence ?
(a) 0° (b) 30° (c) 60° (d) 120°

(12) The ray of light gets deviated when it passes from one medium to another medium because ..... .
(a) the colour of light changes
(b) the frequency of light changes
(c) the velocity of light changes
(d) None of these

(13) A ray of light strikes the glass slab at an angle of 50°. What is the angle of incidence ?
(a) 50° (b) 40° (c) 60° (d) 120°

(14) A glass-slab is placed in the path of convergent light. The point of convergence of light ..... .
(a) moves towards the slab
(b) moves away from slab
(c) remains at the same point
(d) undergoes lateral shift

(15) What is the speed of light in a transparent medium having absolute refractive index 1.25?

(a) 1.25×10^8 m/s (b) 2.4×10^8 m/s

(c) 3.0×108^8 m/s (d) 1.5×10^8 m/s

(16) Which colour of light deviates the least in the spectrum obtained with a prism ?

(a) Red (b) Yellow (c) Violet (d) Blue

ANSWERS:

(1) changing refractive index of atmospheric gases

(2) $\frac{2}{3}$ (3) refraction of light (4) bends towards normal

(5) parallel (6) bends away from normal

(7) 2.42 (8) 3×10^8 (9) $\angle i > \angle r$ but $\angle i = \angle e$

(10) passes without bending (11) 0°

(12) the velocity of light changes (13) 40°

(14) moves away from the slab (15) 2.4×10^8 m/s

(16) Red

7. Lenses

(1) For the normal human eye, the distance of distinct vision is..... .
(a) 15 cm (b) 20 cm (c) 25 m (d) 25 cm

(2) The power of a convex mirror of focal length 50 cm is ..... .
(a) 2 D (b) 0.2 D (c) 50 D (d) 0.5 D

(3) The focal length of a concave lens with power -4 D is .....
(a) –0.5 m (b) 0.5 m (c) –0.25 m (d) 0.25 m

(4) If the incident ray passes through focus, then the refracted ray is ..... to the principal axis.
(a) parallel (b) opposite
(c) perpendicular (d) intersecting

(5) The image is formed on the ..... of the human eye.
(a) Cornea (b) Retina
(c) Pupil (d) Ciliary muscle

(6) If the indent ray is parallel to the principal axis, then the refracted ray passes through the ..... .
(a) Centre (b) Pole
(c) Optical centre (d) Principal focus

(7) If an object is placed between F1 and 2F1 of a convex lens, then the image is ..... .
(a) Real and magnified (b) Real and diminished
(c) virtual, erect (d) virtual, inverted

(8) In myopia,..... objects can be seen clearly.
(a) distant (b) nearby
(c) small (d) big

(9) Longsightedness can be corrected by using..... lens.
(a) cylindrical (b) concave
(c) diverging (d) converging

(10) Convex lens of power +5 D and concave lens with power -3 D are placed together, then the combined power is ..... .

(a) 5 D (b) +3 D (c) 2 D (d) –2 D

(11) In simple microscope, ... lens is used.

(a) Concave (b) Cylindrical

(c) Diverging (d) Convex

(12) The perception of dim light is concerned with ..... cells.

(a) Rod (b) Cone

(c) Amoeboid (d) Squamous

(13) The impression image lasts on the retina for 116^{th} of a second, is called ..... .

(a) dispersion (b) refraction

(c) persistence of vision (d) internal reflection

(14) The second focal point is located at ..... of a human eye.

(a) Retina (b) Optic nerve (c) Cornea (d) Pupil

ANSWERS:

(1) 25 cm (2) 2 D (3) –0.25m (4) parallel

(5) retina (6) principal focus (7) Real and magnified

(8) nearby (9) converging (10) 2 D (11) convex

(12) Rod (13) persistence of vision (14) retina

8.

Metallurgy

(1) ..... . is not a metalloid.
(a) Silicon (b) Antimony
(c) Germanium (d) Aluminium

(2) ..... has the highest melting point.
(a) Tungsten (b) Copper (c) Iron (d) Zinc

(3)..... is the most reactive metal.
(a) Potassium (b) Magnesium
(c) Calcium (d) Sodium

(4) ..... is the formula of cuprite.
(a) Cu_2O (b) Cu_2S (c) $CuCO_3$ (d) $CuCl_2$

(5) Cassiterite is an ore of ..... .
(a) Copper (b) Silver (c) Calcium (d) Tin

(6) Metal oxides are generally ..... .in nature.
(a) Acidic
(b) Basic
(c) Neither acidic nor basic
(d) Both acidic and basic

(7)..... is a non metal which conducts electricity.
(a) Diamond (b) Iodine (c) carbon (d) Graphite

(8) ..... is an oxide which is amphoteric.
(a) Copper oxide (b) Magnesium dioxide
(c) Zinc oxide (d) Calcium oxide

(9) The reactivity of metals with dil HCl in decreasing order is ..... .
(a) Mg >Zn > Al > Fe (b) Mg > Al > Zn > Fe
(c) Fe >Zn > Al > Mg (d) Fe > Al > Zn > Mg

(10) Cinnabar is an ore of ..... .
(a) Aluminium (b) Sodium (c) Iron (d) Mercury

(11) The main constituent of bauxite is ..... .
(a) Al_2O_3 (b) $Al_2(SO_4)_3$ (c) $CaSO_4$ (d) Na_3AlF_6

(12) Which method is used for the purification of more reactive metals?
(a) Chemical reduction
(b) Roasting
(c) Calcination
(d) Electrochemical reduction

(13) Substance used to decrease the melting point of alumina in Hall - Haroult process ..... .
(a) $CuSO_4$ (b) Cryolite (c) Gypsum (d) Limonite

(14) Galvanisation is a method of protecting iron from rusting by coating it with a thin layer of ..... .
(a) Aluminium (b) Tin (c) Silver (d) Zinc

(15) Copper reacts with moist carbon - dioxide in air and slowly loses its shine to gain a green coat of ..... .
(a) Copper oxide (b) Iron oxide
(c) Copper carbonate (d) None of the above

(16) ..... react with dil.HNO3 to evolve hydrogen gas.
(a) Iron and Copper
(b) Manganese and Magnesium
(c) Zinc and Manganese
(d) Aluminium and Magnesium

(17) Silver articles become black on prolonged exposure to air. This is due to the formation of..... .
(a) Ag_3NO_3 (b) Ag_2O
(c) Ag_2S (d) Ag_2S and Ag_3NO_3

(18) In Tinning a layer of molten is ..... deposited on metals.
(a) Zinc (b) Iron (c) Tin (d) Copper

ANSWERS:
(1) Aluminium (2) Tungsten (3) Potassium
(4) Cu_2O (5) Tin (6) basic (7) Graphite
(8) Zinc oxide (9) Mg > Al > Zn > Fe (10) Mercury
(11) Al_2O_3 (12) Electrochemical reduction
(13) Cryolite (14) Zinc (15) Copper carbonate
(16) Manganese and magnesium (17) Ag_2S (18) Tin.

9.

Carbon Compound

(1) The fundamental organic compounds are also known as ..... compounds.
(a) parent (b) father (c) mother (d) daughter

(2) A functional group mainly determines the..... properties.
(a) physical (b) chemical
(c) both (d) both none of the above

(3) The ..... hydrocarbon is also called marsh gas.
(a) ethane (b) propane (c) methane (d) butane

(4) Ethane with the molecular formula $C_2 H_6$ Has ..... covalent bonds.
(a) six (b) seven (c) eight (d) nine

(5) What are the products obtained on complete combustion of hydrocarbons?..... .
(a) $CO + H_2 O$ (b) $CO_2 + H_2$
(c) $CO_2 + H_2 O$ (d) $CO + H_2$

(6) The functional group of alcohol is .
(a) –COOH (b) –OH (c)H CO (d)CO

(7) Ethanol is used as an additive to increase the efficiency of petrol such a fuel is called..... .
(a) ethanol (b) cananol (c) gasohol (d) methanol

(8) After the formation of four Covalent bonds, Carbon attains the electronic configuration of ..... .
(a) Helium (b) Neon (c) Argon (d) Krypton

(9) Diamond and graphite have the same ..... .
(a) chemical properties
(b) same degree of hardness
(c) electrical conductivity
(d) physical forms

(10) The reaction in which two molecules react to form a single product is known as ..... reaction.
(a) substitution (b) addition
(c) hydrogenation (d) polymerisation

(11) IUPAC name of CH_3-CH_3 is ..... .
(a) ethene (b) ethane (c) ethyne (d) ethylene

(12) A saturated hydrocarbon will have suffix ..... .
(a) –ene (b) –yne (c) –ane (d) –one

(13) The valency of carbon is ..... .
(a) 2 (b) 3 (c) 4 (d) 6

(14) ..... is a natural macromolecule
(a) Polythene (b) Monosaccharide's
(c) Polysaccharides (d) Disaccharides

(15) Gas evolved during fermentation ..... .
(a) Q_2 (b) CO (c) H_2 (d) CO_2

(16) A small unit that repeats re-quality to form a polymers.
(a) Macromolecule (b) Polysaccharides
(c) Monomer (d) Dinomer

(17) Monomer of polythene is ..... .
(a) CH= CH (b) CH_2 =CH_2
(c) CH_3 –CH_3 (d) CH=CH

(18) ..... .are used for making fragrance and flavouring agents
(a) Ethers (b) Ethanol
(c) Ester (d) Ethanoic acid

(19) ..... is used in nonstick cookware.
(a) PVC (b) Teflon
(c) Polystyrene (d) Polypropylene

ANSWERS:

(1) parent	(2) chemical	(3) methane	(4) seven
(5) CO_2+H_2O	(6) –OH	(7) gasohol	(8) neon
(9) chemical properties		(10) addition	(11) ethane
(12) -ane	(13) 4	(14) polysaccharides	(15) CO_2
(16) monomer	(17) CH_2=CH_2	(18) Ester	(19) Teflon

10.

Space Mission

(1) Which of the following is the communication satellite of India?
(a) INSAT (b) EDUSAT
(c) Astrosat (d) Resourusat–1

(2) 'Launching of a rocket' is based on Newton's law of motion ..... .
(a) first (b) second (c) third (d) fourth

(3) ..... Planet has maximum number of satellites.
(a) Earth (b) Jupiter (c) Mars (d) Saturn

(4) Which of the following is a satellite launch vehicle?
(a) PSLV (b) IRS (c) INSAT (d) GSAT

(5) ..... is known as Pioneer of Indian space Programme.
(a) Neil Armstrong (b) Yuri Gagarin
(c) Rakesh Sharma (d) Vikram Sarabhai

ANSWERS:
(1) INSAT (2) third (3) Jupiter (4) PSLV
(5) Vikram Sarabhai