

TEST

## Basic Science Test

### QUESTIONS

SECTIONS

1. Choose the Appropriate Answer for the following - 70 Questions

#### Section 1 : Choose the Appropriate Answer for the following - 70 Questions

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1 A \_\_\_\_\_ is defined as any quantity that can be measured.

- ☐ Unit
- ☐ Physical quantity
- ☐ Derived unit
- ☐ None of these

Correct: +4

2 Physical quantities are defined only by a number and unit.

- ☐ Scalar
- ☐ Vector
- ☐ Derived
- ☐ None of these

Correct: +4

3 Vector physical quantities are defined by a \_\_\_\_\_ and direction.

- ☐ Magnitude
- ☐ Speed
- ☐ Length
- ☐ None of those

Correct: +4

4 Out of the following is not a scalar quantity:

- ☐ Length
- ☐ Mass
- ☐ Time
- ☐ Displacement

Correct: +4

5 Out of the following is a scalar quantity:

- ☐ Velocity
- ☐ Force
- ☐ Time

☐ Displacement

Correct: +4

6 Displacement is a \_\_\_\_\_ quantity.

☐ Scalar

☐ Vector

☐ Derived

☐ None of these

Correct: +4

7 In 10 m rod length, 10 represents \_\_\_\_\_ and m represents \_\_\_\_\_.

☐ Unit, magnitude

☐ Magnitude, unit

☐ Direction, unit

☐ Direction, magnitude

Correct: +4

8 Mass, length, time etc. are examples of:

☐ Physical quantity

☐ Derived units

☐ None of these

Correct: +4

9 A \_\_\_\_\_ is defined as the reference standard used for the measurement of a physical quantity.

☐ Physical quantity

☐ Unit

☐ System

☐ None of these

Correct: +4

10 There are \_\_\_\_\_ fundamental quantities.

☐ 1

☐ 5

☐ 7

☐ 10

Correct: +4

11 \_\_\_\_\_ is a supplementary quantity.

- ☐ Solid angle
- ☐ Electric current
- ☐ Time

Correct: +4

12 SI unit of mass is:

- ☐ kg
- ☐ gm
- ☐ quintal
- ☐ none of these

Correct: +4

13 Coulomb's first law states that like charges \_\_\_\_\_ each other and unlike charges \_\_\_\_\_ each other.

- ☐ repel, attract
- ☐ attract, repel
- ☐ repel, repel
- ☐ attract, attract

Correct: +4

- ☐ Linear
- ☐ Nonlinear
- ☐ Bilateral
- ☐ None of these

Correct: +4

15 Pure semiconductors are also called as \_\_\_\_\_ semiconductors.

- ☐ Intrinsic
- ☐ Extrinsic
- ☐ Impure
- ☐ None of these

Correct: +4

16 A p-n junction diode allows current to flow easily in \_\_\_\_\_ direction.

- ☐ Forward
- ☐ Reverse
- ☐ Both
- ☐ None

17 The magnetic lines of force are \_\_\_\_\_ and do not have any physical existence.

- ☐ Imaginary
- ☐ Real
- ☐ Virtual
- ☐ Physical

Correct: +4

18 All the elements connected in the \_\_\_\_\_ circuit will carry the same current I.

- ☐ Series
- ☐ Parallel
- ☐ Star
- ☐ Delta

Correct: +4

19 The forward current through a p-n junction diode flows due to \_\_\_\_\_ carriers.

- ☐ Majority
- ☐ Minority
- ☐ Both

☐ None

Correct: +4

20 In semiconductors, the current flows due to \_\_\_\_\_.

☐ Only holes

☐ Only electrons

☐ Both holes and electrons

☐ None of these

Correct: +4

21 There are no \_\_\_\_\_ in the space charge region.

☐ Ions

☐ Atoms

☐ Free charges

☐ None of these

Correct: +4

22 \_\_\_\_\_ are minority carriers in n-type semiconductors.

☐ Electrons



☐ Ions

☐ None

Correct: +4

23 The electric field present across the junction is called as \_\_\_\_\_.

☐ Barrier potential

☐ Reverse potential

☐ Knee voltage

☐ None

Correct: +4

24 \_\_\_\_\_ act as insulators at low temperatures.

☐ Conductors

☐ Insulators

☐ Semiconductors

☐ None of these

Correct: +4

25 Temperature is defined as a measure of \_\_\_\_\_ possessed by an object.

- ☐ Kinetic energy
- ☐ Potential energy
- ☐ None of these

Correct: +4

26 \_\_\_\_\_ is the process of transmission of heat.

- ☐ Conduction
- ☐ Convection
- ☐ Radiation
- ☐ All of these

Correct: +4

27 Celsius scale is also called \_\_\_\_\_ scale.

- ☐ Centigrade
- ☐ Fahrenheit
- ☐ Kelvin
- ☐ None of these

Correct: +4

- ☐ Refraction
- ☐ Reflection
- ☐ Total internal reflection
- ☐ Diffraction

Correct: +4

29 \_\_\_\_\_ surfaces reflect less heat than white and polished surfaces.

- ☐ Black surface
- ☐ Rough surface
- ☐ Black and rough surface
- ☐ None of these

Correct: +4

30 Boyles law states that at constant temperature, the volume  $V$  of a given mass of a gas is \_\_\_\_\_ proportional to its pressure  $P$ .

- ☐ Directly
- ☐ Inversely
- ☐ Not
- ☐ None of these

31 Charles law states that at constant pressure, the volume  $V$  of the given mass of a gas is \_\_\_\_\_ proportional to its absolute temperature  $T$  in K.

- ☐ Directly
- ☐ Inversely
- ☐ Not
- ☐ None of these

Correct: +4

32 \_\_\_\_\_ does not require any material medium.

- ☐ Conduction
- ☐ Convection
- ☐ Radiation
- ☐ None of these

Correct: +4

33 \_\_\_\_\_ is defined as the change in direction of light ray when it passes obliquely from one medium to the other.

- ☐ Reflection
- ☐ Refraction

- ☐ Diffraction
- ☐ None of these

Correct: +4

34 Refractive Index of \_\_\_\_\_ is 1.

- ☐ Glass
- ☐ Water
- ☐ Air
- ☐ None of these

Correct: +4

35 In optical fibre, light normally follows a \_\_\_\_\_ path.

- ☐ Zig-zag
- ☐ Curved
- ☐ Straight
- ☐ None of the above

Correct: +4

36 The electrons present in the outermost shell of an atom are called \_\_\_\_\_ electrons.

- ☐ Core
- ☐ Kernel
- ☐ None of these

Correct: +4

37 \_\_\_\_\_ bond is formed by transfer of electrons.

- ☐ Ionic
- ☐ Covalent
- ☐ Coordinate
- ☐ Hydrogen

Correct: +4

38 \_\_\_\_\_ bond is formed by mutual sharing of electrons.

- ☐ Ionic
- ☐ Covalent
- ☐ Coordinate
- ☐ Metallic

Correct: +4

- ☐ Lone pair
- ☐ Single electron
- ☐ Proton
- ☐ Neutron

Correct: +4

40 Metals are characterised by high \_\_\_\_\_ conductivity.

- ☐ Electrical and thermal
- ☐ Only electrical
- ☐ Only thermal
- ☐ None of these

Correct: +4

41 In solids, atoms are arranged in \_\_\_\_\_ order.

- ☐ Specific
- ☐ Random
- ☐ Irregular
- ☐ None of these

42 \_\_\_\_\_ solids lack definite shape and long-range order.

- ☐ Crystalline
- ☐ Amorphous
- ☐ Metallic
- ☐ Ionic

Correct: +4

43 Ionic compounds are \_\_\_\_\_ soluble in water.

- ☐ Freely
- ☐ Insoluble
- ☐ Slightly
- ☐ None of these

Correct: +4

44 Covalent compounds are \_\_\_\_\_ conductors of electricity.

- ☐ Good
- ☐ Poor
- ☐ Excellent



☐ None of these

Correct: +4

45 The arrangement of ions in a regular geometric structure is called a \_\_\_\_\_.

☐ Crystal lattice

☐ Amorphous structure

☐ Molecular structure

☐ None of these

Correct: +4

46 Sodium metal has \_\_\_\_\_ crystal lattice.

☐ Simple cubic

☐ Body centered cubic

☐ Face centered cubic

☐ Hexagonal

Correct: +4

47 Aluminium and gold have \_\_\_\_\_ crystal lattice.

☐ Body centered cubic

☐ Face centered cubic

☐ Hexagonal

Correct: +4

48 \_\_\_\_\_ are substances which in aqueous solution conduct electric current.

☐ Electrolytes

☐ Non-electrolytes

☐ Insulators

☐ None of these

Correct: +4

49 \_\_\_\_\_ are electrolytes which are completely ionized in aqueous solution.

☐ Strong electrolytes

☐ Weak electrolytes

☐ Non-electrolytes

☐ None of these

Correct: +4

50 The electrode connected to the negative pole of battery is called \_\_\_\_\_.

- ☐ Anode
- ☐ Electrode
- ☐ None of these

Correct: +4

51 The electrode connected to the positive pole of battery is called \_\_\_\_\_.

- ☐ Anode
- ☐ Cathode
- ☐ Electrode
- ☐ None of these

Correct: +4

52 \_\_\_\_\_ is the process of splitting up of a substance into charged atoms or ions.

- ☐ Ionization
- ☐ Dissociation
- ☐ Electrolysis
- ☐ None of these

Correct: +4

- ☐ Electrolysis
- ☐ Ionization
- ☐ Dissociation
- ☐ None of these

Correct: +4

54 \_\_\_\_\_ cells cannot be recharged and have to be discarded after use.

- ☐ Primary
- ☐ Secondary
- ☐ Storage
- ☐ None of these

Correct: +4

55 \_\_\_\_\_ cells are rechargeable and can be used again and again.

- ☐ Secondary
- ☐ Primary
- ☐ Dry
- ☐ None of these

56 \_\_\_\_\_ is the process of deterioration of metal due to reaction with environment.

- ☐ Corrosion
- ☐ Oxidation
- ☐ Rusting
- ☐ None of these

Correct: +4

57 \_\_\_\_\_ corrosion occurs by direct attack of atmospheric gases on metal surface.

- ☐ Atmospheric
- ☐ Wet
- ☐ Electrochemical
- ☐ None of these

Correct: +4

58 \_\_\_\_\_ corrosion occurs when metal is in contact with conducting liquid.

- ☐ Electrochemical
- ☐ Atmospheric
- ☐ Dry

☐ None of these

Correct: +4

59 In galvanizing process, \_\_\_\_\_ metal is coated on iron articles.

☐ Zinc

☐ Tin

☐ Copper

☐ Chromium

Correct: +4

60 Paint contains \_\_\_\_\_ which provides opacity and colour strength.

☐ Pigments

☐ Thinners

☐ Driers

☐ None of these

Correct: +4

61 \_\_\_\_\_ is a colloidal dispersion of resins in oil or thinner.

☐ Varnish

- ☐ Enamel
- ☐ None of these

Correct: +4

62 \_\_\_\_\_ are materials which prevent flow of heat, electricity or sound.

- ☐ Insulators
- ☐ Conductors
- ☐ Semiconductors
- ☐ None of these

Correct: +4

63 \_\_\_\_\_ is obtained from polystyrene and is a good thermal insulator.

- ☐ Thermocole
- ☐ Glass wool
- ☐ Asbestos
- ☐ None of these

Correct: +4

64 \_\_\_\_\_ are large molecules formed by linking many small molecules together.

- ☐ Monomers
- ☐ Atoms
- ☐ None of these

Correct: +4

65 \_\_\_\_\_ is the single repeating unit that combines to form polymers.

- ☐ Monomer
- ☐ Polymer
- ☐ Dimer
- ☐ Oligomer

Correct: +4

66 \_\_\_\_\_ plastics soften on heating and regain properties on cooling.

- ☐ Thermoplastics
- ☐ Thermosetting plastics
- ☐ Elastomers
- ☐ Fibers

Correct: +4



- ☐ Thermosetting
- ☐ Thermoplastic
- ☐ Elastomers
- ☐ Resins

Correct: +4

68 \_\_\_\_\_ is a chemical substance capable of holding materials together by surface attachment.

- ☐ Adhesive
- ☐ Lubricant
- ☐ Catalyst
- ☐ Solvent

Correct: +4

69 \_\_\_\_\_ is a substance introduced between sliding surfaces to reduce friction and wear.

- ☐ Lubricant
- ☐ Adhesive
- ☐ Catalyst
- ☐ Solvent

70 \_\_\_\_\_ is a substance that alters the velocity of a chemical reaction without undergoing change.

- ☐ Catalyst
- ☐ Inhibitor
- ☐ Reagent
- ☐ Solvent

Correct: +4

TEST

## Basic Science Test

### ANSWERS

SECTIONS

1. Choose the Appropriate Answer for the following - 70 Questions

#### Section 1 : Choose the Appropriate Answer for the following - 70 Questions

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1 Physical quantity

2 Scalar

3 Magnitude

4 Displacement

5 Time

6 Vector

7 Magnitude, unit

8 Physical quantity

9 Unit

10 7

11 Solid angle

12 kg

13 repel, attract

14 Nonlinear

15 Intrinsic

16 Forward

17 Imaginary

18 Series

19 Majority

20 Both holes and electrons

21 Free charges

22 Holes

23 Barrier potential

24 Semiconductors

25 Heat energy

26 Conduction

- 27 Centigrade
- 28 Total internal reflection
- 29 Black and rough surface
- 30 Inversely
- 31 Directly
- 32 Radiation
- 33 Refraction
- 34 Air
- 35 Zig-zag
- 36 Valence
- 37 Ionic
- 38 Covalent
- 39 Lone pair
- 40 Electrical and thermal
- 41 Specific

42 Amorphous

43 Freely

44 Poor

45 Crystal lattice

46 Body centered cubic

47 Face centered cubic

48 Electrolytes

49 Strong electrolytes

50 Cathode

51 Anode

52 Ionization

53 Electrolysis

54 Primary

55 Secondary

56 Corrosion

57 Atmospheric

58 Electrochemical

59 Zinc

60 Pigments

61 Varnish

62 Insulators

63 Thermocole

64 Polymers

65 Monomer

66 Thermoplastics

67 Thermosetting

68 Adhesive

69 Lubricant

70 Catalyst

TEST

## Basic Science Test

### SOLUTIONS

#### SECTIONS

1. Choose the Appropriate Answer for the following - 70 Questions

#### Section 1 : Choose the Appropriate Answer for the following - 70 Questions

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- 1
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