

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

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

32 _____ does not require any material medium.

- Conduction
- Convection
- Radiation
- None of these

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

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ANSWERS

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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

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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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