

Class-XI, Entry Test Sample Papers

Physics

Fill in the blanks.

1. The mass of a proton is times the mass of an electron.
a. $1/1836$ b. 1836 c. 1.67×10^{-27} d. 1800
2. Radio waves travel through air at a speed of m/s
a. 3×10^{12} b. 3×10^{11} c. 3×10^{11} d. 3×10^8
3. The penetrating power of γ - rays is times larger than that of β - rays:
a. 2 b. 100 c. 50 d. 4
4. The property of sound by which a shrill sound is distinguished from a flate or grave one is called.
a. Quality b. Loudness c. Intensity d. Pitch
5. The speed of sound in air is than a man's voice.
a. 1450 b. 1480 c. 330 d. 5130
6. A woman's voice is of higher than a man's voice.
a. Velocity b. Frequency c. Wave Length d. Amplitude
7. Charge carriers in n-type material are
a. Electrons b. Lons c. Protons d. Holes
8. Temporary Magnet is used in
a. Telephone b. Transistor c. Electric bell d. Watch
9. A conducting material has enormous number of
a. Proton b. Neutron c. a-particle d. Electron
10. Fax machine converts a document into
a. Electrical signals b. Radio Waves c. Light Signals d. Magnetic waves
11. The unit of frequency is
a. Seconds b. Decibel c. Pascal d. Hertz
12. is necessary for propagation of sound.
a. Force b. Vacuum c. Medium d. Amplitude
13. A current measuring instruments is called
a. Voltmeter b. galvanometer c. ammeter d. Speed metre
14. When α particle passes through a gas it produces
a. Oxidation b. Ionization c. Evaporation d. Fission
15. The information stored on CD can be read by using
a. X-rays b. α - rays c. Laser rays d. γ - rays
16. The ratio of the size of image to the size of the object is called
a. Focal Length b. Aperture c. Magnification d. Principal axis
17. The intensity of sound is expressed in the units of
a. Watt/m^2 b. Newton /m^2 c. Joule/Sec d. Decibel
18. Focal length of a spherical mirror is the radius of its curvature
a. Twice b. Thrice c. Half d. $1/4$
19. The mass of an electron in kg is
a. 9.1×10^{-31} b. 1.67×10^{-27} c. 6.02×10^{-23} d. 6×10^{24}
20. Which lens is used to form a real image?
a. Convex b. Concave c. Plane d. None of these
21. Rainbow is formed due to Reflection of light.
a. Total internal b. Irregular c. Regular d. Total external
22. The unit of capacitance is
a. Ohm b. Coulomb c. Farad d. Electron volt
23. The angle between rectangular components of a vector is
a. 0° b. 30° c. 60° d. 90°
24. A TV camera and a Microphone convert moving pictures and sound into
a. Radio waves b. Light signals c. Radar signals d. Electrical signals
25. The energy of SHO at extreme position is
a. K.E b. P.E c. Zero d. K.E & P.E

Chemistry

Fill in the blanks.

- The fuel used in Rockets is
b. Natural Gas b. Petroleum c. Acetylene d. Liquid Hydrogen
- is the number of moles of solute dissolved per liter of solution.
b. Molality b. Normality c. Molarity d. Solvent
- The chemical formula of Magnetic oxide
b. Fe_2O_3 b. Fe O c. Fe_3O_4 d. $\text{Fe}_2\text{O}_3 \cdot 2\text{H}_2\text{O}$
- If 8 g of NaOH is dissolved in 250 ml of water. What will be the Molarity of Solution?
b. 0.32 b. 3.125 c. 8 d. 0.8
- Bleaching powder contains
b. Fluorine b. Chlorine c. Bromine d. Iodine
- Different physical forms of the same element are called
b. Allotropes b. Isomers c. Isobars d. Isotopes
- The symbol of Silicon is
b. Se b. S c. Si d. Sn
- Galena is an ore of
b. Sulphur b. Iron c. Aluminum d. Copper
- OH is a functional group of
b. Alkane b. Alkene c. Alcohol d. Alkyne
- The Radioactive element of 7th group of periodic table is
b. Chlorine b. Bromine c. Fluorine d. Astatine
- Chemical formula of Hydrogen peroxide is
b. HO_2 b. H_2O c. H_3O d. H_2O_2
- An alloy of Copper and Zinc is
b. Steel b. Brass c. Nichrome d. Bronze
- Brine is a solution which contains
b. NH_3 b. CaCO_3 c. NaCl d. Na_2CO_3
- Oxygen is present in air by Volume
b. 78% b. 21% c. 29% d. 22%
- Temporary hardness of water is due to
b. CaCl_2 b. CaSO_4 c. $\text{Ca}(\text{HCO}_3)_2$ d. CaCO_3
- Chemical formula of Iron pyrite is
b. Fe_2O_3 b. Fe_3O_4 c. FeS_2 d. $\text{Cu}_2\text{S} \cdot \text{Fe}_2\text{S}_3$
- Chemical formula of Sodium thiosulphate is
b. $\text{Na}_2\text{S}_2\text{O}_7$ b. Na_2SO_3 c. $\text{Na}_2\text{S}_2\text{O}_3$ d. $\text{Na}_2\text{S}_3\text{O}_3$
- Is malleable and ductile
b. Carbon b. Iron c. Sulphur d. Phosphorous
- Teflon is a
b. Soap b. Detergent c. Plastic d. Varnish
- The Crystalline form of Silica is
b. Bauxite b. Limonite c. Sedrite d. Quartz
- Blood plasma contains % of water.
b. 70 b. 80 c. 65 d. 90
- Plastic Sulphur is stable at
b. 71°C b. 96°C c. 119°C d. 141°C
- The general formula for alkene is
b. $\text{C}_n\text{H}_{2n+2}$ b. C_nH_{2n} c. $\text{C}_n\text{H}_{2n-2}$ d. $\text{C}_n\text{H}_{2n+1}$
- KO_2 is an example of
b. Acidic oxide b. Per oxide c. Super oxide d. amphoteric oxide
- Number of moles present in 198 g of water are
a. 19.8 b. 198 c. 11 d. 12.375

Mathematics

Fill in the blanks.

- If $A = \begin{bmatrix} -3 & -2 \\ 5 & 1 \end{bmatrix}$, the $|A| = \dots\dots\dots$
 - 13
 - 13
 - 7
 - 7
- The solution of set of $x^2 - 3x = 0$ is $\dots\dots\dots$
 - {3}
 - {1, 3}
 - {0, 3}
 - {-3}
- A line segment having both end points on circle and not passing through the center is called $\dots\dots\dots$
 - Chord
 - Secant
 - Diameter
 - None of these
- $\sin 30^\circ = \dots\dots\dots$
 - $\tan 30^\circ$
 - $\sec 30^\circ$
 - $\operatorname{cosec} 60^\circ$
 - $\cos 60^\circ$
- An equation having two roots is called $\dots\dots\dots$
 - Linear
 - Cubic
 - Quadratic
 - None of these
- How many points determine a plane?
 - 1
 - 2
 - 3
 - None of these
- If standard deviation of a series is 9, then its variance is $\dots\dots\dots$
 - 81
 - 3
 - 18
 - None of these
- The degree of polynomial $x^2y^2 - 7xy + 100$ is $\dots\dots\dots$
 - Two
 - Three
 - Four
 - Five
- Difference between the largest and smallest value of a given data is called $\dots\dots\dots$
 - Range
 - Median
 - Mode
 - Mean deviation
- $\cot 20^\circ = \tan \dots\dots\dots$
 - 40°
 - 60°
 - 70°
 - 90°
- If set A has 7 elements and set B has 3 elements, then the number of order pairs in $A \times B = \dots\dots\dots$
 - 10
 - 20
 - 21
 - 22
- The solution set of $x(x - 5) = 0$ is $\dots\dots\dots$
 - {0,5}
 - {-5, 0}
 - {0}
 - {5}
- If $13 : 4 = x : 8$, then $x = \dots\dots\dots$
 - 52
 - 26
 - 32
 - 104
- Line segment joining any point of a circle to its centre is called $\dots\dots\dots$
 - Diameter
 - Arc
 - Chord
 - Radial segment
- $\sec^2\theta = 1 + \dots\dots\dots$
 - $\tan^2\theta$
 - $\cot^2\theta$
 - $\cos^2\theta$
 - $\sin^2\theta$
- Point (-2, -2) lies in $\dots\dots\dots$
 - 1st quadrant
 - 2nd quadrant
 - 3rd quadrant
 - None of these
- Eliminating 't' from $x - t^2 = 0, y = t^3$, we get $\dots\dots\dots$
 - $x^2 = yb$
 - $x^3 = y^3$
 - $x^3 = y^2$
 - $x = y^2$
- An angle inscribed in a semi circle is $\dots\dots\dots$
 - Obtus
 - Right angle
 - Acute angle
 - None of these
- A circle touching sides of a triangle internally is called $\dots\dots\dots$
 - Circumcircle
 - Inscribed circle
 - Escribedcircle
 - All of these
- The roots of the equation, $x^2 - 5x + 6 = 0$ are $\dots\dots\dots$
 - $x = 2, 6$
 - $x = 6, 9$
 - $x = 2, 3$
 - $x = 3, 6$
- The solution set of equation $ax + b = 0$ is $\dots\dots\dots$
 - b/a
 - $-b/a$
 - ab
 - $-ab$
- In a right angled triangle the inverse ration of $\operatorname{cosec} \theta = \dots\dots\dots$
 - $\sin \theta$
 - $\cos \theta$
 - $\tan \theta$
 - $\sec \theta$
- $\dots\dots\dots$ should be subtracted from $p^2 + 4q^2$ to make the expression complete square.
 - $4pq$
 - $2pq$
 - pq
 - $19pq$
- The circle is said to be $\dots\dots\dots$ If circle of their radii are of the same length
 - Tangent circle
 - Congruent
 - Intersecting
 - Concentric
- $(a + b)^3 = \dots\dots\dots$
 - $(a - b)(a^2 + ab + b^2)$
 - $(a + b)(a^2 - ab + b^2)$
 - $a^3 + b^3 + 3ab(a + b)$
 - $a^3 + b^3 - 3ab(a + b)$

