10. Refractive index depends on

A. angle of prism B. wavelength of the light C. intensity of light D. frequency of light

**B**

1. Surface temperature of the sun is of the order of

A. 5000 K B. 7000 K C. 6000 K D. 12000 K

**A**

13. The reason of various colours in bubble soap is

A. interference B. visible light C. diffraction D. none of these

**A**

65. The plastic household crockery is prepared using

A. malamine

B. malonic acid and hexamethyleneamine

C. malamine and vinyl acetate

D. malamine and formaldehyde

**D**

72. The elevation in the boiling point would be highest for

A. 0.08 M barium chloride

B. 0.10 M glucose

C. 0.15 M potassium chloride

D. 0.06 M calcium nitrate

**A**

71. A fairly specific test for phenol is

A. decolourisation of bromine water

B. dissolution in aqueous alkali

C. decolourisation of KMnO4

D none of these

**A**

138. The next term of the sequence 1, 5, 14, 30, 55, ........ is

A. 91 B. 85 C. 90 D. 95

A

149. Equation of a plane parallel to x-axis is

A. ax + cz + d = 0 B. by + cz + d = 0 C. ax + by + d = 0 D. ax + by + cz + d = 0

B

154. Two dice are thrown, the probability that the sum of the points on two dice will be 7 is

A. 8/36 B. 7/36 C. 6/36 D. 5/36

C

Frequency of AC in india

A.50 Hz

B.60 Hz

C.40 Hz

D.55 Hz

A

Paper 2

In a cyclotrimetaphosphoric acid molecule, how many single and double bonds are present?

* (i) 3 double bonds; 9 single bonds
* (ii) 6 double bonds; 6 single bonds
* (iii) 3 double bonds; 12 single bonds
* (iv) Zero double bonds; 12 single bonds

(3)

Which of the following elements can be involved in pπ–dπ bonding?

* (i) Carbon
* (ii) Nitrogen
* (iii) Phosphorus
* (iv) Boron

(3)

Which of the following elements does not show allotropy?

* (i) Nitrogen
* (ii) Bismuth
* (iii) Antimony
* (iv) Arsenic

(1)

Maximum covalency of nitrogen is

* (i) 3
* (ii) 5
* (iii) 4
* (iv) 6

(4)

The oxidation state of central atom in the anion of compound NaH2PO2 will be

* (i) +3
* (ii) +5
* (iii) +1
* (iv) –3

(3)

Which of the following is correct for P4 molecule of white phosphorus?

* (i) It has 6 lone pairs of electrons.
* (ii) It has six P–P single bonds.
* (iii) It has three P–P single bonds.
* (iv) It has four lone pairs of electrons.

(2)

**The solubility of iodine in water is greatly increased by :**

(a)    Adding an acid

(b)    Boiling the solution

(c)    Cooling the solution

(d)    Adding potassium iodide

(D)

**Among the C – x bond (where X = Cl, Br, I) the correct bond energy order is:**

(a)    C – Cl > C – Br < C– I

(b)    C – l > C – Cl > C – Br

(c)    C – Br > C – Cl > C – I

(d)    C – l > C – Br > C – CI

(a)

**Iodine is placed between two liquids C6H6and water :**

(a)    It dissolve more in C6H6

(b)    It dissolve more in water

(c)    It dissolve equally in both

(d)    Does not dissolve in both

(A)

**Oxidising action increases from left to right in the order:**

(a)    Cl2 < Br2 < I2 < F2

(b)    Cl2 < I2 < Br2 < F2

(c)    I2 < F2 < Cl2 < Br2

(d)    I2 < Br2 < Cl2 < F2

(D)