Ts11C

Tenkasi District

Common Second Mid Term Test - 2024

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Standard 11

CHEMISTRY

Time: 1.30 Hrs. Marks: 35

PART - I

I. Choose the correct answer: **5×1=5**

1) Lithium shows diagonal relationship with
   a) Sodium b) Magnesium c) Calcium d) Aluminium
2) Formula of Washing soda
   a) $Na_2CO_3.7H_2O$ b) $Na_2CO_3.10H_2O$ c) $Na_2CO_3.H_2O$ d) Na_2CO_3
3) Which of the following compounds will not undergo Friedal - Crafts reaction easily?
   a) Nitro benzene b) Toluene c) Cumene d) Xylene
4) Bond order of a species is 2.5 and the number of electrons in its bonding molecular orbital is formed to be 8. The number of electrons in the antibonding molecular orbital is
   a) three b) four c) zero d) can not be calculated
5) According to Raoults law the relative lowering of vapour pressure of a solution is equal to
   a) mole fraction of solvant b) mole fraction of solute
   c) number of moles of solute d) number of moles of solvent

PART - II

II. Answer any three of the following: [Q.No. 10 is compulsory] **3×2=6**

6) How is plaster of paris prepared?
7) What is relative lowering of vapour pressure?
8) Which bond is stronger σ or π? Why?
9) Write Sabatier - Sendersens reactions.
10) Phenol dimerises in benzene having Van't Hoff factor 0.54. What is the degree of association?

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PART - III

III. Answer any three of the following: [Q.No. 15 is compulsory] **3×3=9**

11) Explain the distinctive behaviour of beryllium.
12) What is molal depression constant? Does it depend on nature of the solute?
13) Write the limitations of Henry's law.
14) In CH_4, NH_3 and H_2O, the central atom undergoes sp^3 hybridisation. Yet their bond angles are different. Why?
15) Explain Anti-Markovni Koff's rule (or) Peroxide effect with example.

PART - IV

IV. Answer any three of the following: **3×5=15**

16) Discuss the similarities of between beryllium and aluminium.

17) What is Osmotic pressure. Explain the determination of molar mass from Osmotic pressure.

18) Discuss the formation of O_2 molecule using MO theory.

19) Describe Fajan's rule.

20) Write short notes on the following:

i) Wartz - Fitting reaction

ii) Polymerisation reaction

iii) Friedel craft's reaction
