MS JUNIOR COLLEGE
Hyderabad

GUESS PAPER - 2
INTERMEDIATE 1st YEAR

Time: 3hours　　　　　　　　**CHEMISTRY - I**　　　　　　　　Max.Marks:60

INSTRUCTIONS:
1.　Q.Nos: 1 - 10 are Very Short Answer Type. Answer them in about 30 words each. Each question carries 2 marks.
2.　Q. Nos: 11 - 18 are Short Answer Type. Answer them in 75 - 100 words each. Each question carries 4 marks.
3.　Q.Nos: 19 - 21 are Long Answer Type. Answer them in about 300 words each. Each question carries 8 marks.

I.　Answer All Questions: (Very Short Answer Type).　　　　　　　　**[10 x 2 = 20]**

1.　What is classical smog? what is its chemical character (Oxidizing or reducing) ?

2.　Define TLV and Sink.

3.　How many times methane diffuses faster than sulphur dioxide?

4.　The emperical formula of a compound is CH_2O. It's molecular weigh is 90. Caluate molecular formula of compound.

5　What is pH ? Calculate pH of 0.05 M HCl solution.

6.　What is meant by coal gasification? Explain with relevant, balanced equation.

7.　Give the formulae of　　(a) Borax　　(b) Colemanite

8.　What happens when magnesium metal is burnt in air ?

9.　Give the formula of borazine. What is its common name ?

10.　Write IUPAC name of the following compounds

i) $CH_3 - CH_2 - CH_2 - CH = CH_2$　　　ii)
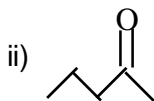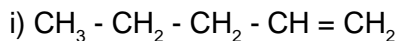
II.　Answer any Six : (Short Answer Type)　　　　　　　　**[6 x 4 = 24]**

11.　Explain the formation of coordinate covalent bond with one example.

12.　Deduce a) Graham's Law . b) Boyle's Law from Kinetic gas equation.

13.　Balance the following redox reactions by ion electron method in acidic medium

$$Cr_2O_{7(aq)}^{2-} + SO_{2(g)} \rightarrow Cr_{(aq)}^{3+} + SO_{4(aq)}^{2-}$$
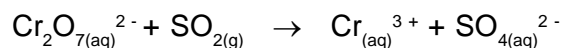
14.　Define heat capacity. What are C_p and C_V ? Show that $C_p - C_V = R$

15.　Explain briefly about Bronsted - Lowry theory with example.

16.　Write a few lines on the utility of hydrogen as a fuel.

17.　How is diborane prepared ? Explain its structure.

18　What is Frieadal Crafts reaction and Wurtz reaction. Give an example for each.

III.　Answer any Two : (Long Answer Type)　　　　　　　　**[2 x 8 = 16]**

19.　How are the quantum numbers n,l m and s arrived and explain the significance of quantum number?

20.　What is a periodic property? How the following properties vary in a group and in a period? Explain

　　a) Atomic radius　　　b) Electron gain enthalpy　　　c) IE　　　d) EN

21.　a) Give an account of VSEPR Theory and its applications.

　　b) Give the molecular orbital energy diagram of N_2 molecule.

****