

INTERMEDIATE - I YEAR CHEMISTRY

Model Paper-1

Time-3hours

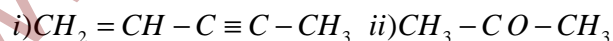
Maximum marks: 60

SECTION-A

(10x2=20M)

Note: Answer all questions.

- 1) How many moles OF GLUCOSE are present in 540 gms of glucose?
- 2) Which of the gases diffuses faster among N_2, O_2 and CH_4 . Why?
- 3) What is conjugate acid-base pair? Give example.
- 4) Describe the importance of Plaster of Paris.
- 5) Give the formula of borazine. What is its common name?
- 6) Diamond has high melting point .Explain
- 7) How is water gas prepared? Give its composition.
- 8) Which oxides cause Acid rain? Give the P^H of acid rain.
- 9) Give the chemical equations involved in the Ozone depletion by CF_2Cl_2
- 10) Write the IUPAC names of the following compounds.



SECTION-B

Note: Answer any Six of the following

6x4m=24M

- 11) State and explain Graham's law of diffusion.
- 12) Chemical analysis of a carbon compound gave 10.06% carbon, 89.1% chlorine and 0.84% Hydrogen. Calculate the empirical formula of the compound.
- 13) Define and explain the following with one example each
 - i) Standard enthalpy of formation
 - ii) Enthalpy of combustion.
- 14) Which salts are responsible for temporary hardness? Explain the removal of temporary hardness by Clark's method.
- 15) Discuss the structure of Boric acid. Give its uses.
- 16) What are homogeneous and heterogeneous equilibria? Give examples.
- 17) Explain functional group isomerism and position isomerism with one example each.
- 18) How does acetylene react with the following
 - a) Acetic acid
 - b) Water
 - c) Hydrogen halide
 - d) Ammonical $AgNO_3$ solution.

SECTION-C

Note: Answer any two questions

(2X8=16M)

- 19) What are quantum numbers? Give their significance.
- 20) What is meant by hybridisation? Explain sp , sp^2 and sp^3 hybridisation by taking organic compounds as examples.

21) What is a periodic property? How the following properties vary in a group and in a period?

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|-----------------------|----------------------------|
| a) Atomic radius | b) Ionisation enthalpy |
| c) Electro negativity | d) Electron gain enthalpy. |

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