Total Time: 3:00 Hours

Chemistry (9th)

(Full Course)

Total Marks: 53

Time Allowed: 2.40 Hours

"Section – B"

Marks: 32

Q-2. Write short answers to any eight (8) of the following parts All parts carry equal marks:-

(i) How many grams are present in 4 moles of NaOH? (At. mass Na=23amu, O=16amu, H=1amu)

(ii) Write difference between Rutherford and Bohr's atomic model?

(iii) How many shells and valence electrons, the elements Chlorine and Magnesium have?

(iv) Explain the Octet rule with the help of electronic configuration of inert gases?

(v) Give difference between single and triple covalent bond with the help of example?

(vi) A 500ml sample of hydrogen is heated from 27^0C to 77^0C at constant pressure. What is the final volume of the gas?

(vii) Give one example of the following solutions:

(a) Gas in Gas (b) Gas in Liquid (c) Liquid in Gas (c) Liquid in Solid

(viii) How can we prepare 500ml of 0.02 molar Solution from 1 molar solution of HCl?

(ix) Write chemical reactions for manufacturing of NaOH from Brine.

(x) Explain electroplating of Zinc in terms of cathodic and anodic reaction.

(xi) Why gold is used in standard desktop or laptop computers. Give proper reasons?

"Section – C"

Marks: 21

Note: Answer any three (3) questions. All questions carry equal marks:-

Q-3. (i) Find out the molecular mass of C_2H_6 in a.m.u and also expressed it into grams? (3)

(ii) Write the names of isotopes of Chlorine. Draw their atomic structure. (4)

Q-4. (i) Which group in periodic table represents halogens? Write the names of elements included in that group. (3)

(ii) Why are metallic bonds so strong? Justify your answer. (4)

Q-5. (i) Calculate the final volume of $3.5dm^3$ gas at 300mm of Hg when pressure changes to 400m of Hg. (3)

(ii) Differentiate between solute and solvent with the help of an example. (4)

Q-6. (i) Write reaction of sodium with Sulphur and halogens? (3)

(ii) What is the composition of electrodes and which electrolytes are used in dry cell? (4)