

First Terminal Examination

Subject : Chemistry

Standard-XI

Day: Saturday

Time: 08:00 am to 10.00 am

Date: 24/11/2018

Max. Marks: 50

Note: 1) All questions are compulsory.

2) Section 'A' contains Q.1 to Q.3 of MCQ type of one mark each. Q.4 to Q.6 of very short answer (VSA) type of ONE mark each.

3) Section 'B' contains Q.7 to Q.11 of short answer (SA) type of TWO marks each. Internal choice is provided to one question.

4) Section 'C' contains Q.12 to Q.19 of short answer (SA) type of THREE marks each.

5) Section 'D' contains Q.20 to Q.21 of long answer with FIVE marks and internal choice.

6) Use of logarithmic table is allowed. Use of calculator is not allowed.

7) Given data : Avogadro's Number, $N_A = 6.022 \times 10^{23}$.

Gas constant, $R = 8.314 \text{ JK}^{-1}\text{mol}^{-1}$

Atomic mass, C = 12, O = 16, H = 1, N = 14

Section - A

- 1) 6.022×10^{23} is the number of particles present in _____. (1)
 a) 1 molecule b) 1 atom c) 1 kg d) 1 mole
- 2) Acetylene on Chlorination gives (1)
 a) Chloroethane b) 1, 2 - dichloroethane
 c) 1,1,2,2 - tetrachloroethane d) 2,2,3,3 - tetrachloroethane
- 3) Na_2CO_3 is a salt of _____. (1)
 a) Strong acid and strong base b) Strong acid and weak base
 c) Weak acid and strong base d) Weak acid and weak base
- 4) Write the general formula of Alkenes. (1)
- 5) What is the shape of 's - orbital'? (1)
- 6) What is the effect of impurity on boiling point of liquid? (1)

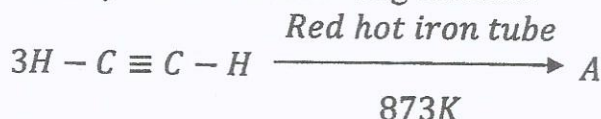
Section - B

- 7) Write the structure of the following hydrocarbons. (2)
 a) 2 - Methylhexane b) 3,3,4,4 - Tetramethylheptane

OR

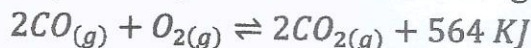
How will you convert ethyl chloride into: (a) Ethane (b) n - butane

- 8) Calculate the number of moles in $1.1 \times 10^{-4} \text{ kg CO}_2$. (C = 12, O = 16) (2)
- 9) State and explain Hund's rule with an example. (2)
- 10) Identify 'A' in the following reaction. (2)



Write the uses of Acetylene.

- 11) Explain the effect of change in temperature on the following reaction at equilibrium (2)



Section - C

- 12) Explain chain isomerism in alkenes with suitable example. Write important uses of Alkane. (3)