

Home Assignment

Class: TDC 2nd Semester
Subject: **Chemistry (Major)**
Paper: **2.1**

(Physical Chemistry Chemistry)

Total Marks: 20

Date of submission: 22nd October, 2021

(Write the Answer of all questions, in A4 size paper, in one side. A margin of ½ inch should be kept in all the four sides of the answer sheet)

1. Write short notes on the following: 3x6=18
 - a) Van-der-Waal equation of state.
 - b) Structure of liquid crystals
 - c) Abnormal colligative property
 - d) Kohlrausch's Law of independent migration of ions
 - e) Stokes-Einstein Relation
 - f) Calomel Electrode
2. Define activity and activity coefficient. 2

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Home Assignment

Class: TDC 2nd Semester
Subject: **Chemistry (Major)**
Paper: **2.2**

(Organic Chemistry)

Total Marks: 20

Date of submission: 22nd October, 2021

(Write the Answer of all questions, in A4 size paper, in one side. A margin of ½ inch should be kept in all the four sides of the answer sheet)

1. Write the mechanism of the following reactions: 4x2 = 8
 - a) Electrophilic Aromatic Substitution Reaction with appropriate example.
 - b) Nucleophilic Aromatic Substitution Reaction with appropriate example.
2. Write one general method each of preparation of the following compounds: 2x5=10
 - a) Alkyl Halide
 - b) Aliphatic ketone
 - c) Aromatic primary amine
 - d) Phenol
 - e) Benzene
3. Draw the two stable conformations of cyclohexane and compare their relative stabilities. 2

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Home Assignment

Class: TDC 2nd Semester
Subject: **Chemistry (General)**
Paper: **2.1**

(Organic Chemistry)

Total Marks: 20

Date of submission: 22nd October, 2021

(Write the Answer of all questions, in A4 size paper, in one side. A margin of ½ inch should be kept in all the four sides of the answer sheet)

1. Write one general method each of the following class of compounds: 2x6=12
 - a) Alkane
 - b) Alkene
 - c) Cycloalkane
 - d) Alkyne
 - e) Naphthalene.
 - f) Anthracene.
2. Deduce the relation between Cp and Cv. 3
3. Discuss the phase diagram of Sulfur System. 5

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