

B. Sc 2nd Semester (Non CBCS) Home Assignment
Subject: Chemistry(Arrear)

Last Date of Submission: 10/08/2020

Total Marks: 50

Question No 1: Answer the following questions

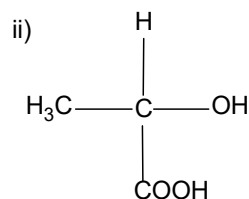
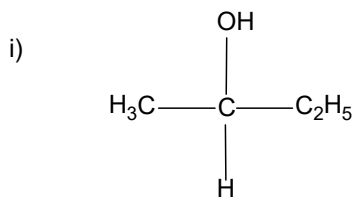
1X10=10

- a) Write the definition of Phase?
- b) What is azeotrope?
- c) What is the relation between H and U?
- d) What is Lindlar's Catalyst?
- e) What is Grignard reagent?
- f) Optically active isomers but not mirror images are called?
- g) What is the IUPAC name of the compound,
$$\text{H}_2\text{C}=\text{CHC}(\text{CH}_3)_2\text{C}\equiv\text{CH}$$
- h) Write the Hess's law.
- i) What is degree of freedom?
- j) Write down the stability order of Carbocations?

Question No 2: Answer the following questions

2X5=10

- a) Write two general methods of preparation alkanes.
- b) Write down the reaction mechanism of ozonolysis.
- c) Derive the relation between C_p and C_v .
- d) What is standard free energy and its significance.
- e) Assign R,S notation



Question No 3: Answer the following questions

5X3=15

- a) What is optical activity? Give the stereoisomers of tartaric acid. Why racemic mixture optically inactive.
- b) Write down Markovnikov's and Saitzeff rule with examples.
- c) Write the preparation and properties of Naphthalene.

Question No 4: Explain carnot cycle with diagram. **5**

Question No 5: Write down the phase diagram of water-sulphur system. **5**

Question No 6: What is geometrical isomer? Write down Cis-Trans and E, Z nomenclature with examples. **1+4=5**