

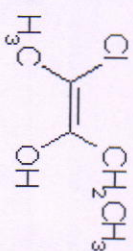
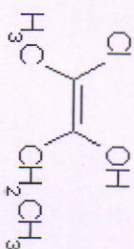
**Que-1. Answer any 12 questions. Each question carries 1 mark [12]**

1. Define Stereo-chemistry.
2. How many chiral carbons present in tartaric acid?  
(i) 1      (ii) 2      (iii) 3      (iv) None
3. Chair conformer is most stable than boat (True/False)
4. Define Optical Activity.
5. Ethanol and dimethyl ether are example of functional group isomer. (True/False)
6. Lactic acid Contained \_\_\_\_\_ Optical isomer.  
(a) 2      (b) 3      (c) 4      (d) 1
7. How many sigma and pie bond present in benzene ring.
8. Draw the structure of cis-2-butene.
9. Give the one example of E- nomenclature.
10. Hydrogen bond is stronger bond than vander-waals force.  
(True/False)
11. What is the shape of p-orbital?
12. Write a full form of ABMO.
13. Which type of bond is present in NaCl?

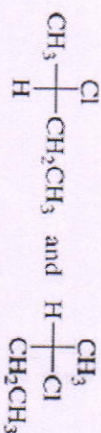
**Que-2. Answer any five questions. Each question carries 4marks [20]**

1. What is isomer? Explained structural isomer with example.
2. Write a note on hydrogen bond.

3. Identify the E and Z configuration of following compounds.



4. Write a note on enantiomer.
5. Write the difference between  $\sigma$  (Sigma) and  $\pi$  (Pi) bond.
6. Write the R and S nomenclature of following compounds.



7. Write a note on overlapping of orbitals.

**Que-3. Answer any four questions. Each question carries 7 marks [28]**

1. Briefly describe the optical isomer.
2. Draw the conformer of cyclohexane with its energy graph.
3. What is intermolecular force? Explained its types with example.
4. Explain geometric isomer with example.
5. Briefly explain intramolecular force with its type.
6. Write a note on VB theory with its limitation.