AS/2051

956/MH

GE-2 Chemistry 2 Code BHB9

Max. marks 74 Time 3hrs

SET- A

The question paper consists of three sections A, B and C. Section A and B have four questions from the respective sections of the syllabus and carry 11 marks each. Candidates are required to attempt two questions each from sections A and B of the question paper. Section C consist of 15 short answer type questions carry 30 marks and candidates are required to attempt the entire section C.

SECTION –A

Q1 State Fajan's rule. Explain with the help of this rule, which compound from the following is more covalent: i) AgCl or AgI II) LiCl or KCl. 11

Q2 What is Born—Haber cycle? Discuss its usefulness by explaning the stability of solids. 11

Q3 What are colligative properties? Comment on the statement that colligative properties are properties of solvent. 11

Q4 Give a brief account of enzyme catalysis. Discuss in detail the mechanism of enzyme catalyzed reactions. Discuss in details the factors which influence rates of reactions. 11

SECTION- B

Q5 Write all the position isomers of monochloropentane . Assign R and S configuration to the enantiomers if any formed. Alkannes and Alkynes do not show geometrical isomerism. Why? 11

Q6 Differentiate configurational and conformational isomers. Will trichloroethene show geometrical isomerism. Give reasons for your answer. 11

Q7 Explain the terms chirality and optical activity. What do you mean by enantiomers and their properties?. How are diastereoisomers differ from enantiomers? 11

Q8 What are meso compounds? Give one example. Glucose contain four chiral centres. What is the number of possible optical isomers. What is the condition for a compound to be chiral? 11

SECTION –C 15 X 2 = 30

1. Explain plane of symmetry.
2. What is EZ rotation? Assign E and Z configuration to ClCH=CHF.
3. What do you mean by resolution?
4. Define Molecular chirality.

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5. What are cis and trans isomers? Give two examples of each
6. Define Anti aromatic compound
7. What is Huckel's rule of aromaticity?
8. Explain the action of a catalyst in terms of activation energy.
9. Explain autocatalysis.
10. What is n-p junction?
11. What is radius ratio rule?
12. What percentage of space is occupied in a bcc type of arrangement?
13. Explain the term chemical potential.
14. What is meant by degree of dissociation?
15. Explain why most of reactions are only first and second order?

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