#### APPENDIX XII

#### INSTRUCTIONAL MANUAL

### THE PACKAGE:

The package has been developed on three units of the standard XI Chemistry textbooks from syllabus of Gujarat State Higher Secondary Education Board.

# They are :

- Bonding and Molecular structure.
- 2. Organic compounds and
- 3. Energy

Each unit according to its content is sub-divided into several modules.

# UNIT (1) BONDING AND MOLECULAR STRUCTURE DIVIDED INTO SEVEN MODULES.

- 1. Module 1. Octect rule and lewis structures.
- 2. Module 2. Ionic bond and Ionic solids.
- 3. Module 3. Covalent bond.
- 4. Module 4. Molecular solids & network solids
- 5. Module 5. Co-ordinate covalent bond.
- 6. Module 6. Metallic Bond & Metallic solids.
- 7. Module 7. Hydrogen bond.

## UNIT (2) ORGANIC COMPOUNDS IS SUB-DIVIDED INTO FIVE MODULES

- Module 1. (i) Classification of hydrocarbons,
  - (ii) Functional Groups,
  - (iii) Classification of carbon atoms,
  - (iv) Homologous series.
- 2. Module 2. IUPAC NOMENCLATURE.
- 3. Module 3. Structural isomerism.
- 4. Module 4. Optical isomerism.
- Module 5. Geometric isomerism.

### UNIT (3) ENERGY IS SUB-DIVIDED INTO THREE MODULES.

- 1. Module 1. Sources of Energy
- Module 2. Energy Terms Associated with matter, i.e.
  - (i) Internal energy (E)
  - (ii) Enthalpy (H)
  - (iii) Free Energy (G)
  - (iv) Entropy (S)

- 3. Module 3. Types of Reaction and Energy Changes:
  - (i) Endothermic and Exothermic reactions.
  - (ii) Hess's law of constant heat summation.
  - (iii) Heat of Neutralization.
  - (iv) Heat of combustion.
  - (v) Heat of fusion.
  - (vi) Enthalpy of vaporization.
  - (vii) Enthalpy and bond energy changes in gaseous state.

## GETTING STARTED:

In the "C:\>" prompt first write mode "co80" then switch over to "A:\>" drive. For running the software write the "exe" file name as mentioned chapterwise. Then press enter key. It will display the list of students and

"Enter your full Name : "\_\_\_\_\_ (PRESS ENTER KEY)

The screen will display

CHAPTER NO. MODULE NO.

### OPERATING THE MODULE :

When the screen displays :

CHAPTER NO. MODULE NO.

Use Pagedown key & Pageup key for referring the text

When the module ends, it displays

Are you ready for Test ?

Press "Y" for Yes... Press "N" for No....

If you press "N" you can once again go through the text using page up/page down keys.

If you press "Y" then after using Enter key go through the question answer session.

QUESTION/ANSWER: After every module there is question-answer session. You have to keep few instructions in mind while going through it.

- For answering use the serial number given in the (i) options i.e. From 1 to 4.
- After giving correct answer press enter key twice to go (ii) to next question.

For giving correct answer to the question you are given thee attempts.

If your score is minimum 50% then only you can go to the next module, otherwise it will take you to the previous module.

If you are not interested to go through the module second time press escape key, you will directly go to the question-answer session of the module.

In the case of figures/Diagrams in the text, you use enter keys and page up, page down keys.

Finally you are requested not to play with the key board.

## INSTRUCTIONS FOR THE INSTRUCTOR/TEACHER:

Teacher will take care of the above mentioned instructions and will guide and help students in case of difficulty.

To come out of the software press the following key. first go to question answer session, you will read following message.

Are you ready for the Test?
Press "Y"

Press "5" and Press Enter key.