2.3.2

Teachers use ICT enabled tools for effective teaching-learning process

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Teachers use ICT enabled tools for effective teaching-learning process (Academic Year 2022-2023)

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1) List of ICT Tools

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No.	ICT Tools	Faculties using ICT Tools
1	VM-Edulife Software:	All
2	Demonstration software on animal experimentation (Ex-Pharma):	Ms. S.S.Shaikh Ms. S.V. Kathale
3	LCD Projector:	All
4	Chem Draw Software:	Dr. K.S. Jain Mr. P.V. Rane Mr. A.N. Phuge
5	Chem sketch Software:	Dr. K.S. Jain Mr. P.V. Rane Mr. A.N. Phuge
6	Computer and Mobile Apps	All
7	Educational Websites	All
8	Windows Office (Word, Excel, Power point, Outlook)	All
9	Blogs	Dr. J.S. Dhumal Mr. S.N. Ghodekar Mr. A.N. Phuge
10	Motic Microscope Software:	Dr. J.S. Dhumal Mr. S.N. Ghodekar
11	Words worth software:	Ms. P.S. Deorankar Mr. S.N. Ghodekar
12	You Tube	Dr. K.S. Jain Dr. J.S. Dhumal Ms. A.K. Thikekar Mr. A.N. Phuge
13	Artificial intelligence (AI)	All

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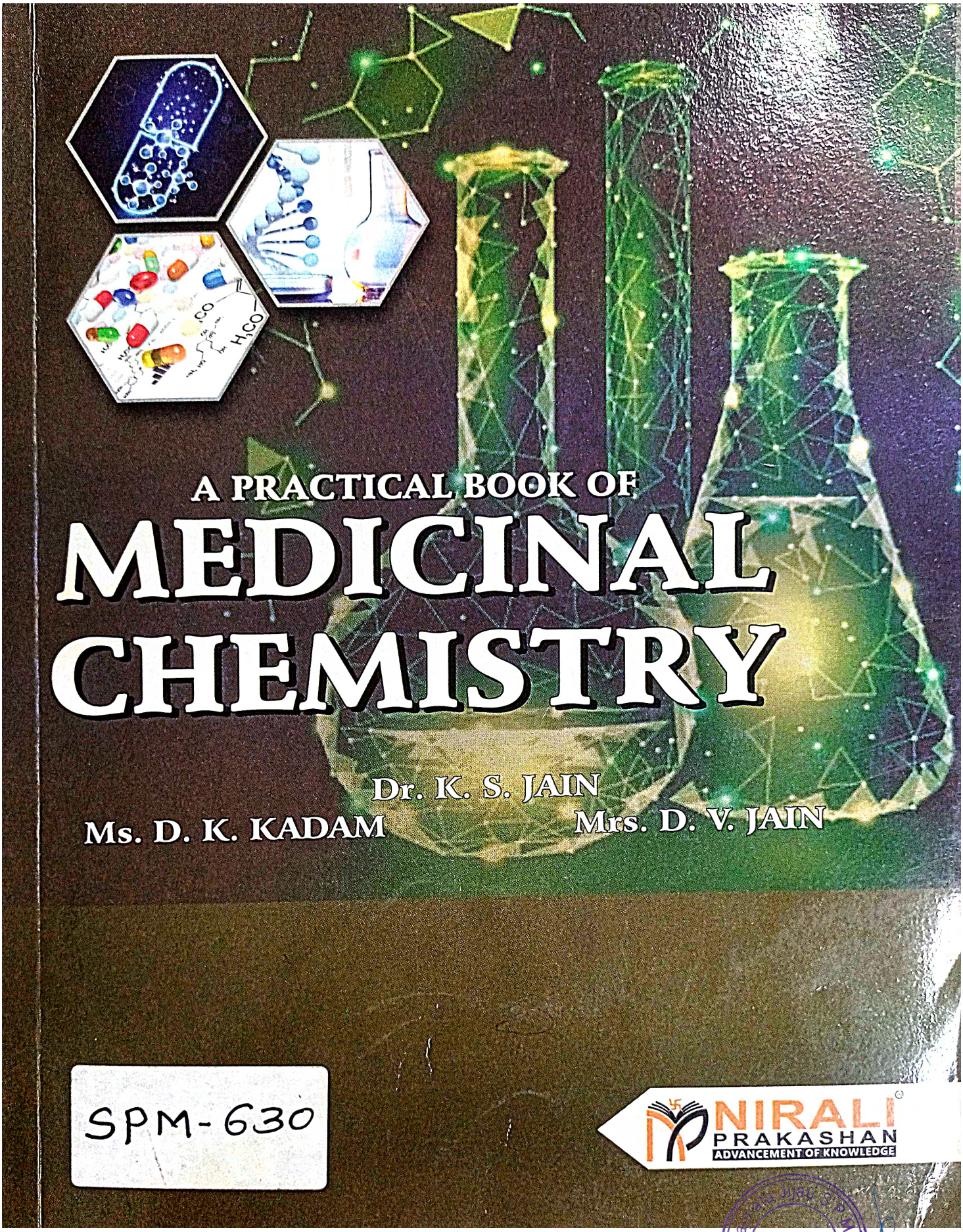


A PRACTICAL BOOK OF

MEDICINAL CHEMISTRY

Dr. K. S. JAIN
Ms. D. K. KADAM
Mrs. D. V. JAIN

NIRALI PRAKASHAN
ADVANCEMENT OF KNOWLEDGE

Chapter ... 8

Drawing Structures and Reactions using Different Softwares

♦ LEARNING OBJECTIVES ♦

After completing this chapter, student should be able to understand:

- *Various softwares used for the drawing of chemical structures and reactions.*
- *Use of software ChemSketch for drawing chemical structures and reactions.*
- *Use of software ChemDraw for drawing chemical structures and reactions.*
- *Procedure for starting ACD/ChemSketch.*
- *Drawing Reaction Mechanisms in ChemSketch.*
- *Use of computer programmes in pharmacy.*

EXPERIMENT 8.1

- **Aim:** To draw chemical structures and reaction schemes by using ChemSketch® Software.
- **Category:** Freeware
- **Link for download:** https://www.acdlabs.com/resources/free-chemistry-software-apps/chemsketch-freeware/ #chemsketch_modal
- **Theory:**

The term chemical structure represents a range of items from very simple molecules (e.g., diatomic hydrogen), to very complex ones (e.g., such as protein). Therefore, a computer program has been the best tool since a long time for the chemists for creating and modifying representations of chemical structures and reactions; storing them and retrieving as well as exporting them at a click of the computer. Currently, several computer programs including:

(i) Standalone programs:
e.g. ACD/ChemSketch, ArgusLab, Bkchem, ChemDraw, ISISDraw, etc.

(ii) Java Applets:
e.g. AccelrysJDraw, JChemPaint, JME Molecule Editor

(iii) JavaScript embeddable editors:
e.g. Angular DrawChem, Ketcher, Marvin JS, Molispiration WebME molecule editor

(iv) Online Editor:
e.g. MolEdit, marvin, PubChem online

(v) Mobile editor apps:

e.g. ChemDoodle Mobile

ChemSketch® by ACD LABS is a comprehensive structure editor with a variety of tools and functionality that ease the communication of scientific and chemical information.

Salient features/capabilities include:

- Draw molecular structures, generate structures or copy/paste from ChemDraw.
- Easily and quickly known molecules or templates can be included.
- Insert pre-drawn templates of amino acids, aromatics, steroids, sugars, and more.
- Search the Dictionary of >170, 000 systematic, trivial and trade names.
- Easy to draw reactions and complex chemical schemes (including biotransformation maps, use graphical templates and tools to communicate chemistry and chemical biology concepts e.g., chemical bond types, Lewis structures, molecular orbitals, Newman projections, peptide sequences, and more).
- Import and export structure files in a variety of standard file formats.
- Draw complex schemes, such as biotransformation maps, with ease.
- Draw organic molecules, organometallics, biomolecules, polymers, Lewis structures, 2D and 3D structure representations and more. Calculate quantities for chemical reactions (with automatically calculated chemical formula, molecular weight etc.).

Why has a Drawing Package?

A Drawing package is useful to have so molecular, shortened structural and full structural formulae can be inserted into Activity sheets, Tests and Prelims, and Powerpoint presentations. It is also possible to generate information such as the systematic name of a compound and its molecular weight using these application programs. Many are available free on the Internet.

Theory of Working:

ACD/ChemSketch is a molecular modeling program used to create and modify images of chemical structures. Also, there is a facility in this software that allows molecules and molecular models displayed in two and three dimensions, to understand the structure of chemical bonds and the nature of the functional groups. The program offers some advanced features that allow the molecules rotate and apply colours to improve visualization. It has several templates with ions and functional groups with the possibility to add text and use other tools to optimize the productions created by the software.

Specific Functions:

- You can now write your ChemSketch files in PDF format, suitable for use with Adobe Acrobat Reader and related software.
- It can also export structures in Chemical Markup Language (CML) format. Convert SMILES notations to structures, and re-convert structures back to SMILES. (Designations and stereochemistry excluded.)
- The atomic mass can be calculated, not exactly the average mass, but of the most common isotopes.

- There are new templates, and some improvements to the existing templates.
- A new module, ACD/Free Name, is available as a button on the toolbar.
- The 3D rotation convention has been made identical to the one used by the ACD/3D viewer.

Procedure for starting ACD/ChemSketch:

Once ACD/ChemSketch has been installed on your computer, follow these basic steps to start it:

1. Start Microsoft Windows.
2. Double-click the ChemSketch icon.

OR

From the Start/Run menu in the Windows 95/98/2000 or NT taskbar, choose ACD/Labs and then choose the ChemSketch icon.

OR

Double-click the program file "chemsk.exe" in the folder where you have installed all ACD software. By default this is ACD50.

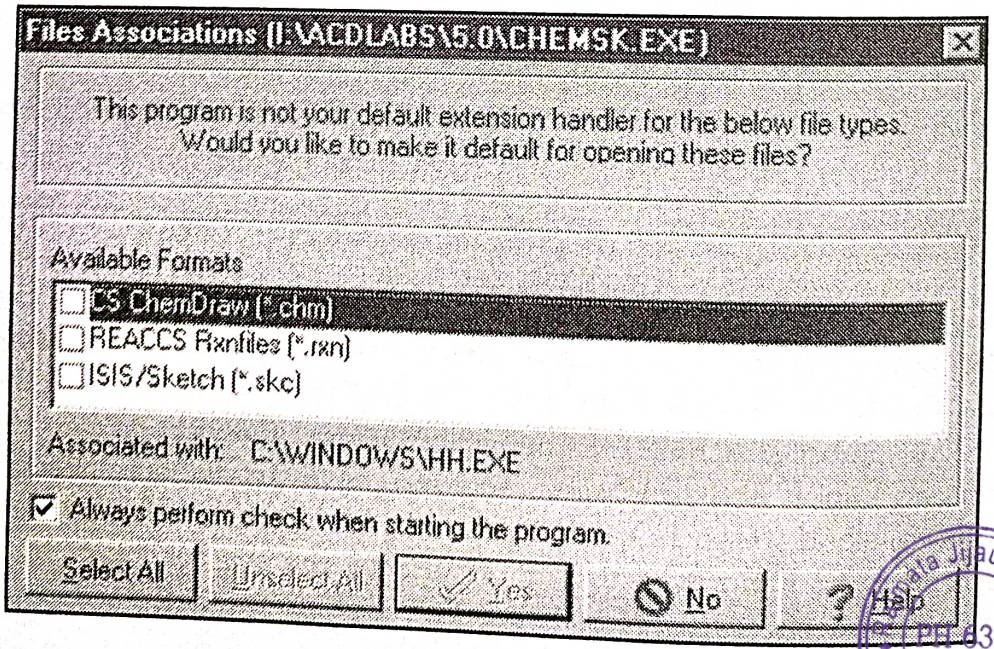
OR

If you have other ACD/Labs programs running, from the ACD/Labs menu choose ChemSketch.

3. You should see an opening splash screen. If this is the freeware version, you will see the **ACD/Labs Products** screen. Click **OK** to close it. If you wish to suppress this dialog box for the subsequent start-ups, choose **Help > ACD/Labs Products** and clear the **Show this Screen at Start-up** check box.

(A) Starting the Program for the First Time:

The File Association dialog box may appear.



1. This contains a selectable list of file extensions and file types - CS ChemDraw (*.CHM), REACCS Rxnfiles (*.RXN), ISIS/Sketch (*.SKC) and possibly others which you may want to open automatically with ACD software from now on. If so, click the check boxes of the file formats you want to add, and then click the Yes button.
2. If you do not want to have ChemSketch automatically open files with the listed extension, or are not sure, leave the check boxes blank and click the No button.
3. Then you will see a Tip of the Day box, which you can close after reading.

(B) Changing File Associations:

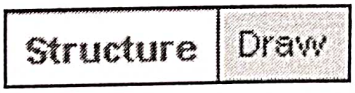
If you have not selected all formats, the default file association can be viewed or changed at any time by going to the File menu and selecting File Association. If you have selected all formats, then you receive a message, "all supported file types are already associated with the current application." In this case, to change the file associations, you can do it through Windows Explorer.

1. Open Windows Explorer, and select a file with the extension for which you want to create the association.
2. Hold down the SHIFT key and right-click on the file. From the pop-up menu, select Open With.
3. Set the application that should be used to open the file and select the Always use this program check box.
4. Click OK and close Windows Explorer.

(C) Structure and Draw Mode icons:

When ACD/ChemSketch starts up, you will find many menu commands and toolbar buttons appear dimmed (inactive). They will be made available as soon as you draw a structure.

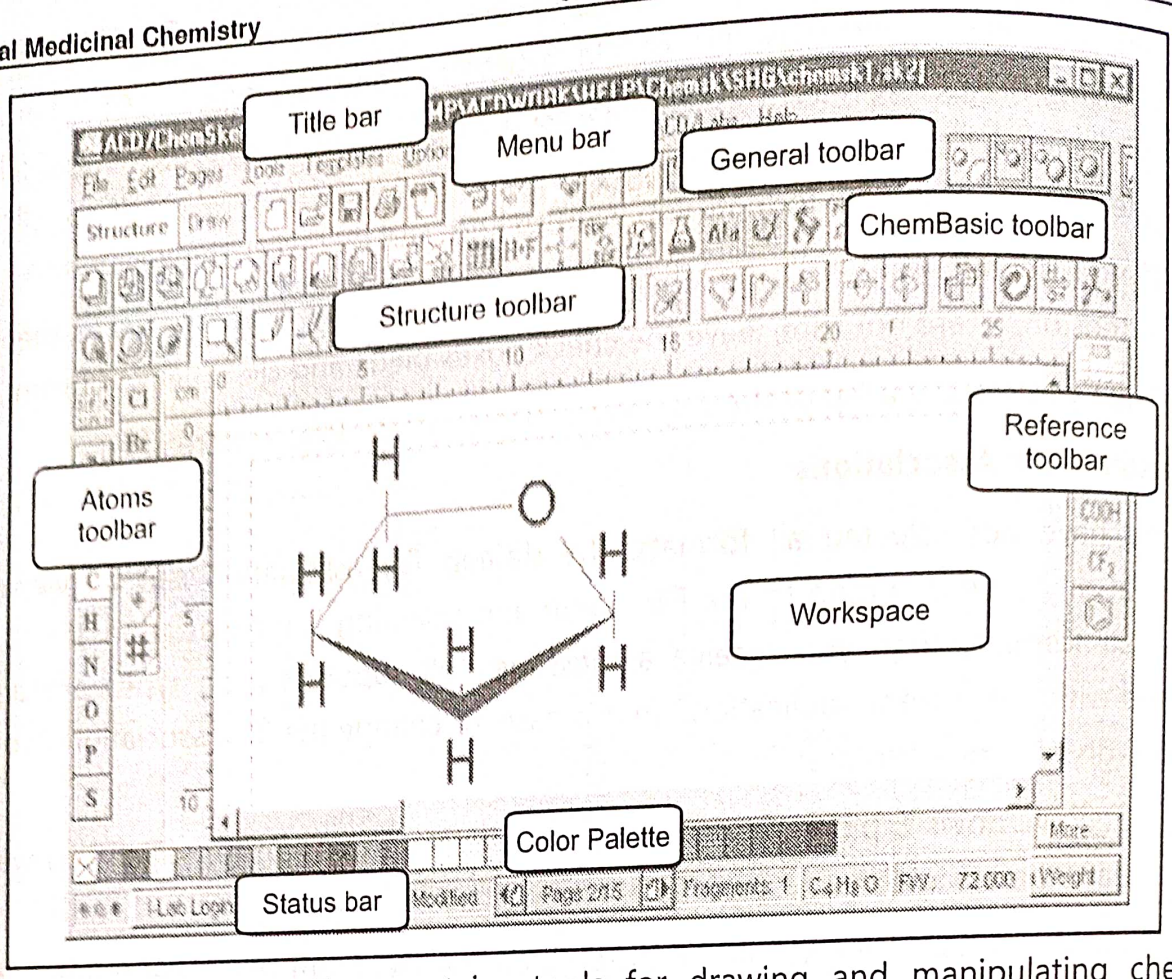
In the ChemSketch window, there are two modes, Structure and Draw. You switch between them using the buttons in the upper left-hand corner:



In the Structure Mode you draw structures and reaction schemes while the Draw Mode presents you with the tools for entering text and drawing various graphical objects.

(I) Toolbars in Structure Mode Screen:

Below, you can see the screen with the Structure Mode enabled. The names and positions of some of the toolbars are shown.



- **The Structure toolbar** contains tools for drawing and manipulating chemical structures.
- **The Atoms toolbar** is displayed vertically to the left of the screen and contains buttons representing atoms, as well as tools for changing atom properties (charge, valence, numbering, etc.).
- Simply click an atom if you wish to display it in a structure.
- **Workspace** is the open area in the middle where structures are drawn.
- **Colour Palette** at the bottom of the workspace allows you to quickly colour atoms and bonds in the selected chemical structures.
- **The Reference toolbar** is placed to the right of the window and contains the Table of Radicals and various buttons representing ready-made structures and radicals you can take from the table.

Some useful Buttons in Structure mode:

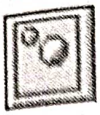
The 'Undo' Button:

It is not uncommon, especially when first using the Drawing Package to make mistakes when drawing structures.

This button can be a lifesaver! It resets the ChemSketch screen to exactly what it was before you made the mistake.

Note: As soon as the 'Undo' button is clicked, the 'Redo' button next to it becomes active. This button will allow you to move forward again if you undo too many steps.

The 'Full Page' button:



This allows you to see how the page will look in a printout. If necessary, move the objects on the page to arrange them properly.

The 'Template' button:

This button brings up a list of templates such as Lewis dot diagrams, Lab equipment, Orbitals, Hazard Symbols etc. which you can copy and paste into a ChemSketch® page.

The 'Optimization (or Clean)' button:

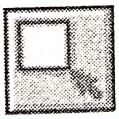
This will optimize bond angles etc., after you have altered a structure so that it looks more viable.

The 'Delete' button:

This allows you to 'rub out' parts of molecules or even whole structures as required.

The 'Selector' button:

Lasso selector

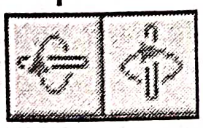


Rectangle selector

Select atoms, bonds and fragments by using either of these selectors.

To deselect fragment(s), click anywhere on an empty space.

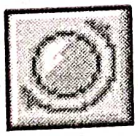
The 'Flip' buttons:



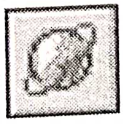
These will flip the structure Top to Bottom or Left to Right.

The 'Move' buttons:

Move



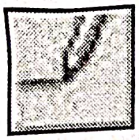
Rotate/Resize



3-D rotate

Once a fragment has been selected, you can move it in these three ways.

The 'Drawing' buttons:


Draw Normal


Draw Continuous


Draw Chains

These allow the structures to be drawn in the format chosen.

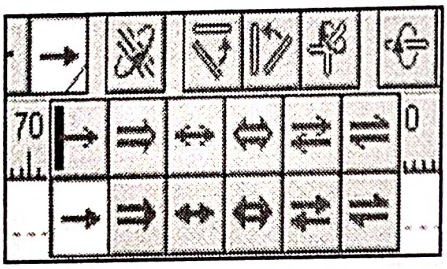
The 'Bond' buttons:

These allow stereo bonds

or coordinate bonds to be drawn.

The 'Reaction' buttons:

Use these to give the plus sign and the arrow in equations. Clicking on the small white rectangle in the bottom right corner of the arrow icon gives various types of reaction arrows to choose from.



The 'Change Position' button:

This allows you to change the orientation of groups in a chain.

The '3-D Optimization' button:

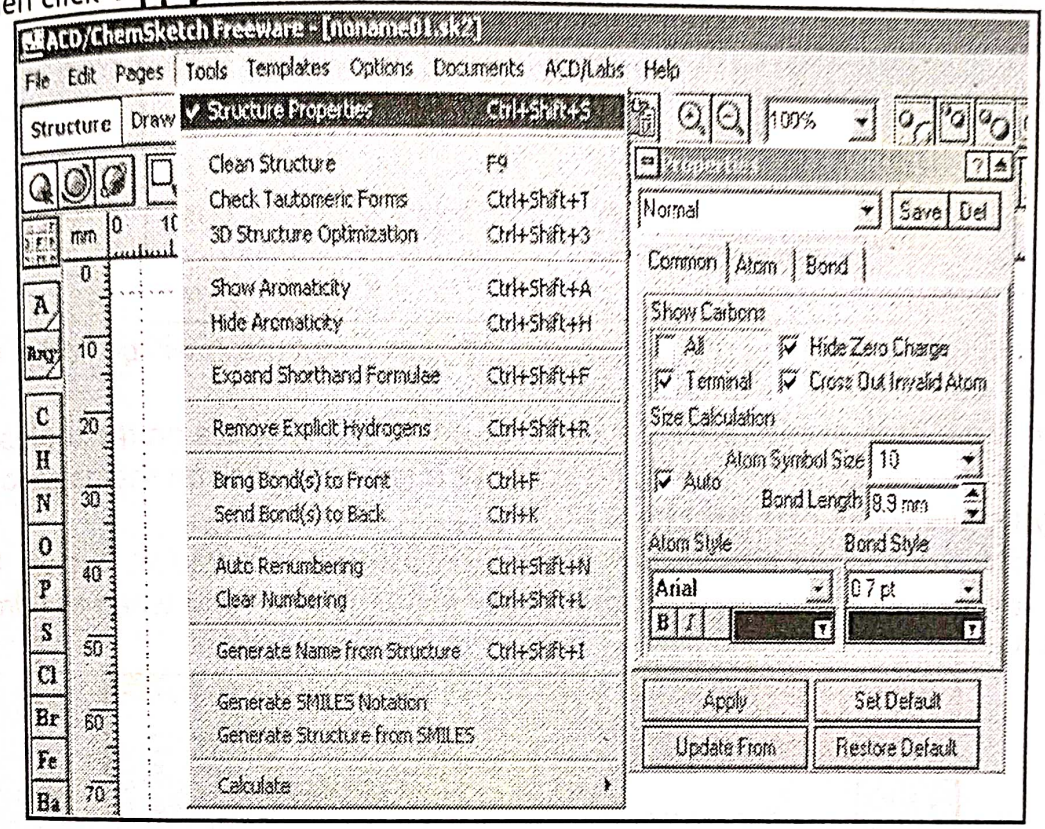
This allows you to rotate a structure in 3-D.

1. **Making all carbons in a chain visible:**

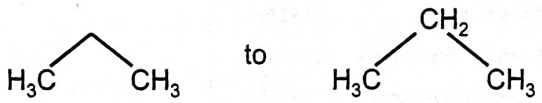
   Proceed as follows:

   - Choose the '**Select/Move**' button.

- Drag the mouse over the structure to select it.
- Now choose '**Tools**' from the Menu, and when the drop-down menu appears, choose '**Structure Properties**'.
- This opens a further window.
- Click the tab '**Common**' and ensure the box '**All**'' under '**Show Carbons**' is checked.
- Then click '**Apply**'. Now click the box '**Set Default**'.



e.g. Propane can be changed from

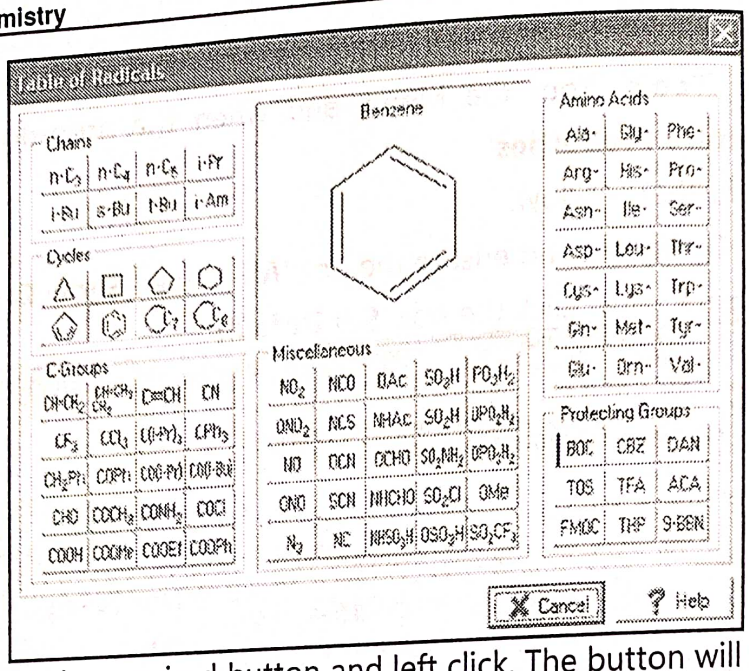


2. Drawing cyclic structures:

Using the Reference Toolbar: This is placed to the right of the window and contains the Table of Radicals and various buttons representing ready-made structures and radicals you can take from the table.

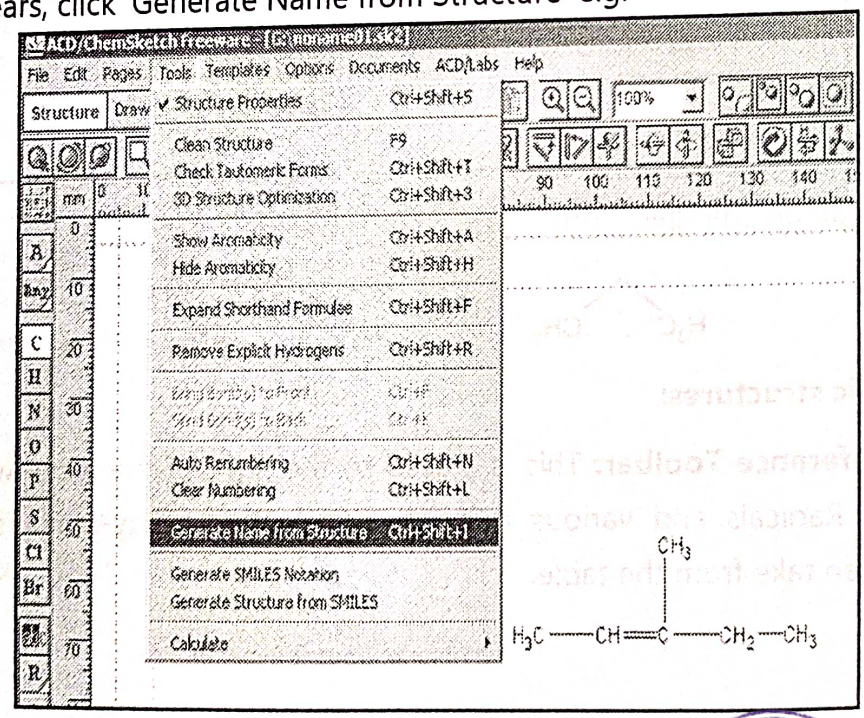
To make common structures or radicals readily available, left click on the icon or press the F6 key.

This will open a window containing the Radicals and Structures available.

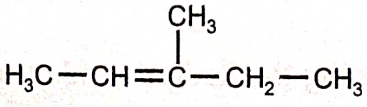


Point the cursor at the required button and left click. The button will be added to the list below the icon (this can hold up to 12 buttons).
To remove a button from the list, double-click on an empty space on the toolbar.
To use the structure, click on the icon to choose it and then click on the page to place it.

3. **Displaying the name of a structure:**
Ensure 'Structure Mode' is selected. Now choose the 'Select/Move' button. Drag the mouse over the structure to highlight it. Now 'Menu', 'Tools', and when the drop-down menu appears, click 'Generate Name from Structure' e.g.



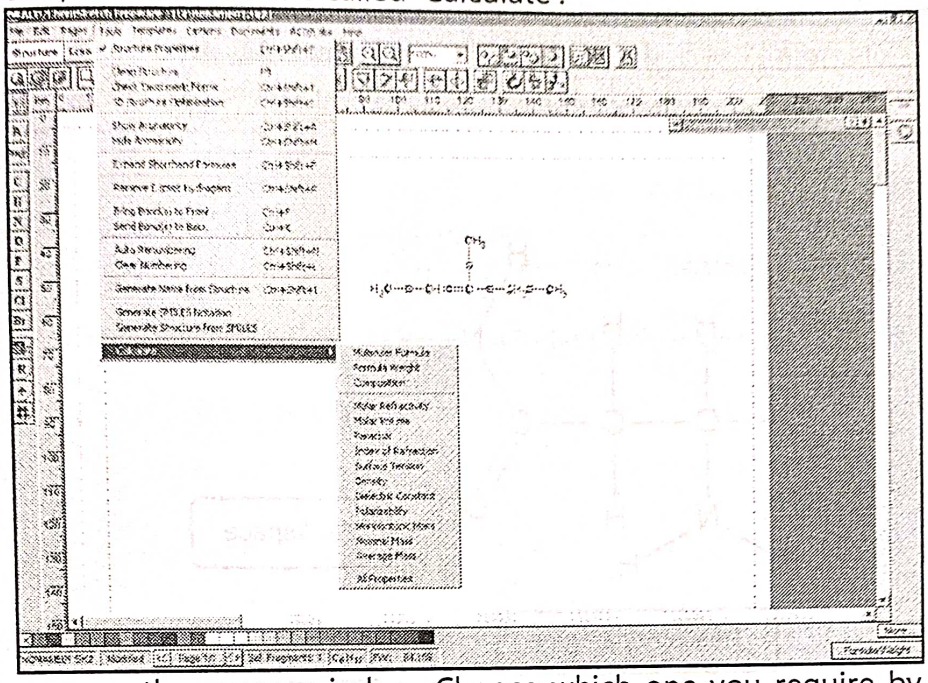
The window closes and the name is displayed under the structure. This operation is possible on full structural formula as well.



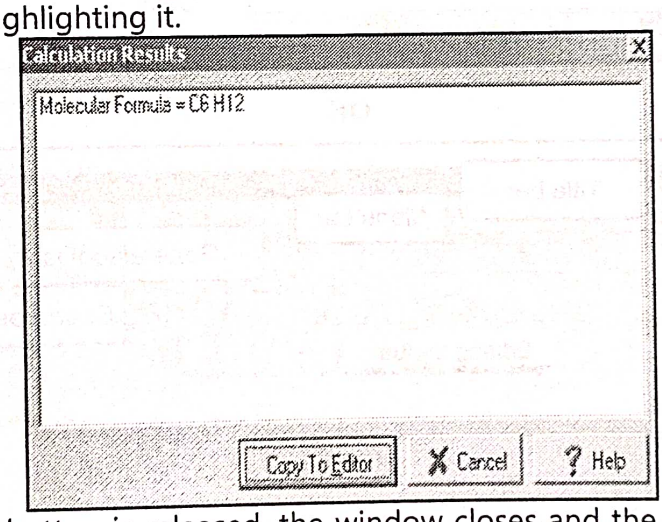
3-methylpent-2-ene-

4. Displaying the molecular formula, formula weight, composition etc.:

Ensure 'Structure Mode' is selected. Now choose the 'Select/Move' button. Drag the mouse over the structure to highlight it. Now 'Menu', 'Tools', and when the drop-down menu appears, click the last one called 'Calculate'.



This will open another menu window. Choose which one you require by dragging the mouse over and highlighting it.

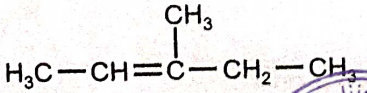


When the mouse button is released, the window closes and the type of window shown opposite opens.

Click the box 'Copy to Editor' and the calculation will appear beside the structure.

This can be repeated again and again for all the required calculations, and the results dragged about and placed to where you wish on the page.

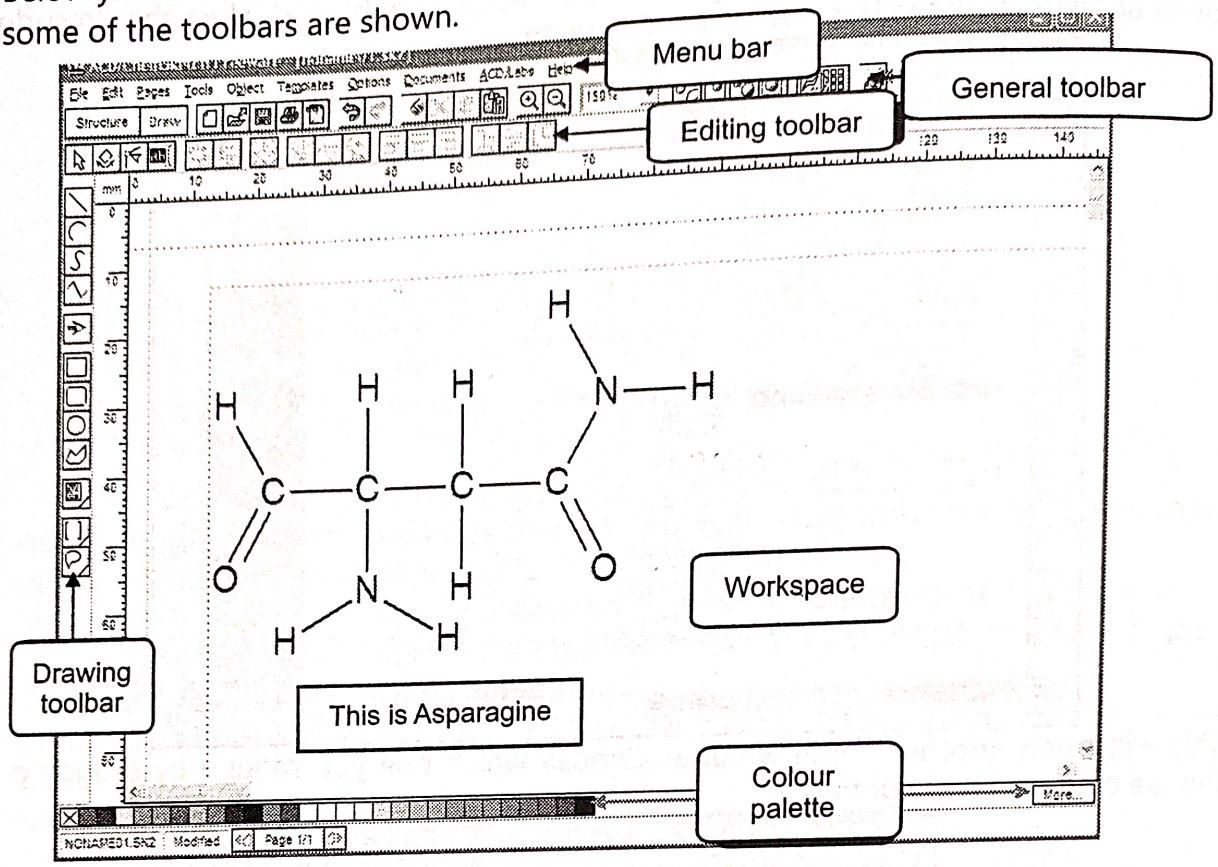
e.g.



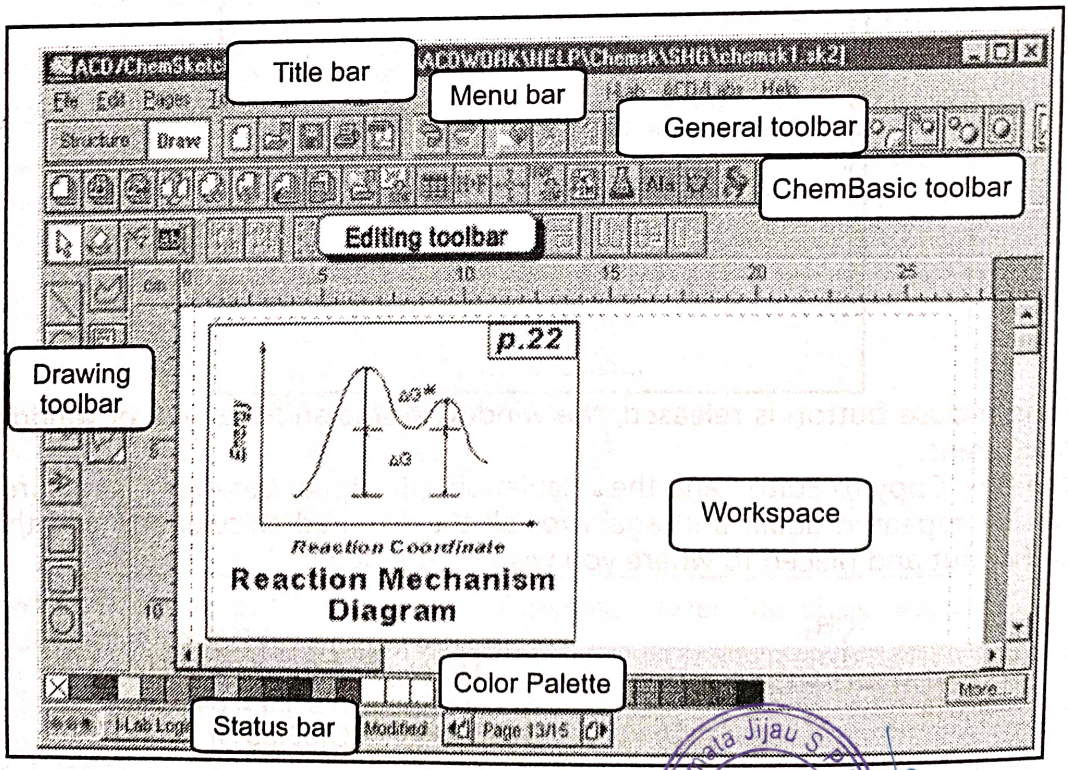
3-methylpent-2-ene
Molecular Formula = C_6H_{12}
Formula Weight = 84.159
Composition = C(85.63%) H(14.37%)

(II) Toolbars in Draw Mode Screen:

Below you can see the screen with the Draw Mode enabled. The names and positions of some of the toolbars are shown.

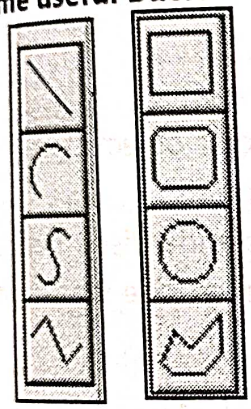


OR



- **Menu bar** contains a series of words. Each word links to a list ('menu') of related commands for working in the ChemSketch window in Draw mode.
- **General toolbar** includes tools that are present in both Structure and Draw modes and will help you with tasks general for both modes such as saving, opening files, undoing/redoing operations, copying and pasting, zooming in and out, as well as inserting various templates.
- **Editing toolbar** is only present in the Draw mode incorporates tools for editing and manipulating drawn graphical objects.
- **Drawing toolbar** displayed vertically to the left of the screen contains buttons for drawing various graphical objects and text.
- **Workspace** is the open area in the middle where graphical objects are drawn and text is typed.
- **Colour Palette** at the bottom of the workspace allows you to quickly colour selected objects.

Some useful Buttons in Draw mode:



The 'Lines and Box shape' Buttons:

These are displayed down the left hand side of the screen and are used in the same way as they are in Word® by clicking and dragging to draw the selected item.

The 'Draw arrow' button:

Use this to draw an arrow.

The 'Text' button:

Use this to type text in a page.

The 'Edit Text' button:

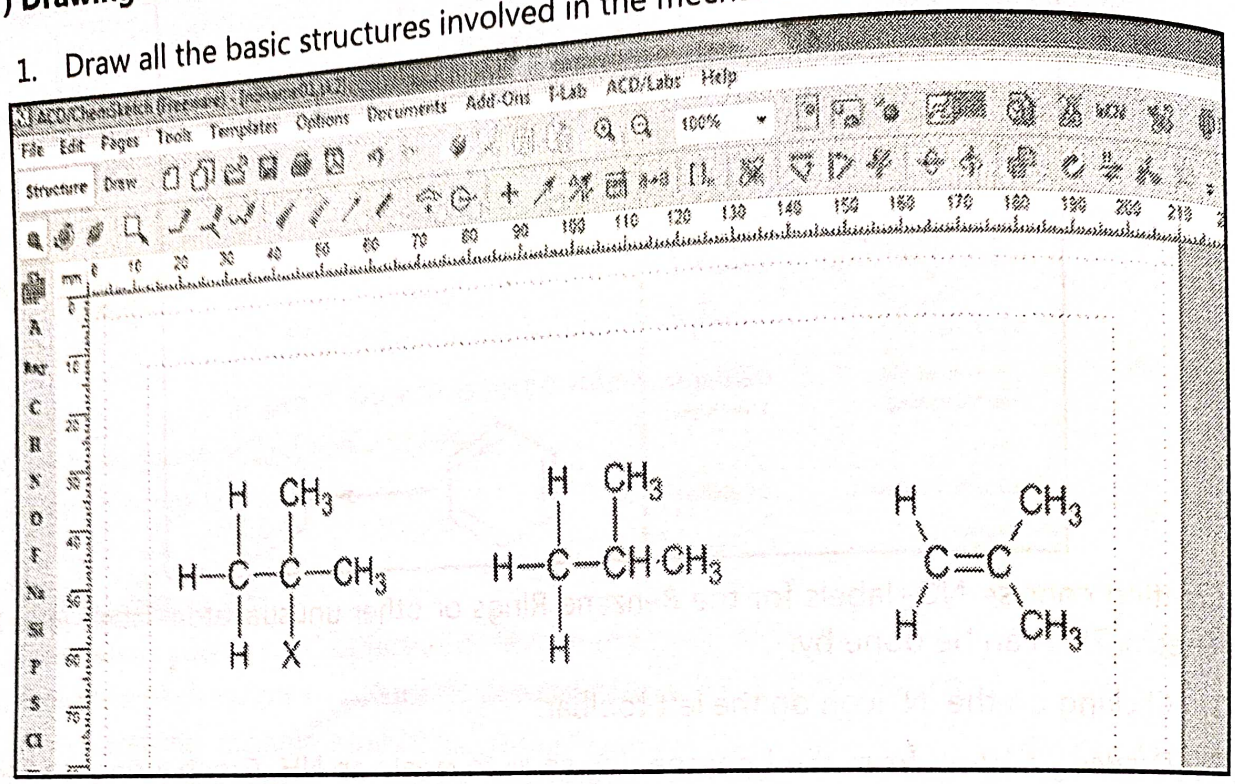
Use this to edit text.

The 'Select/Move/Resize 'Button:

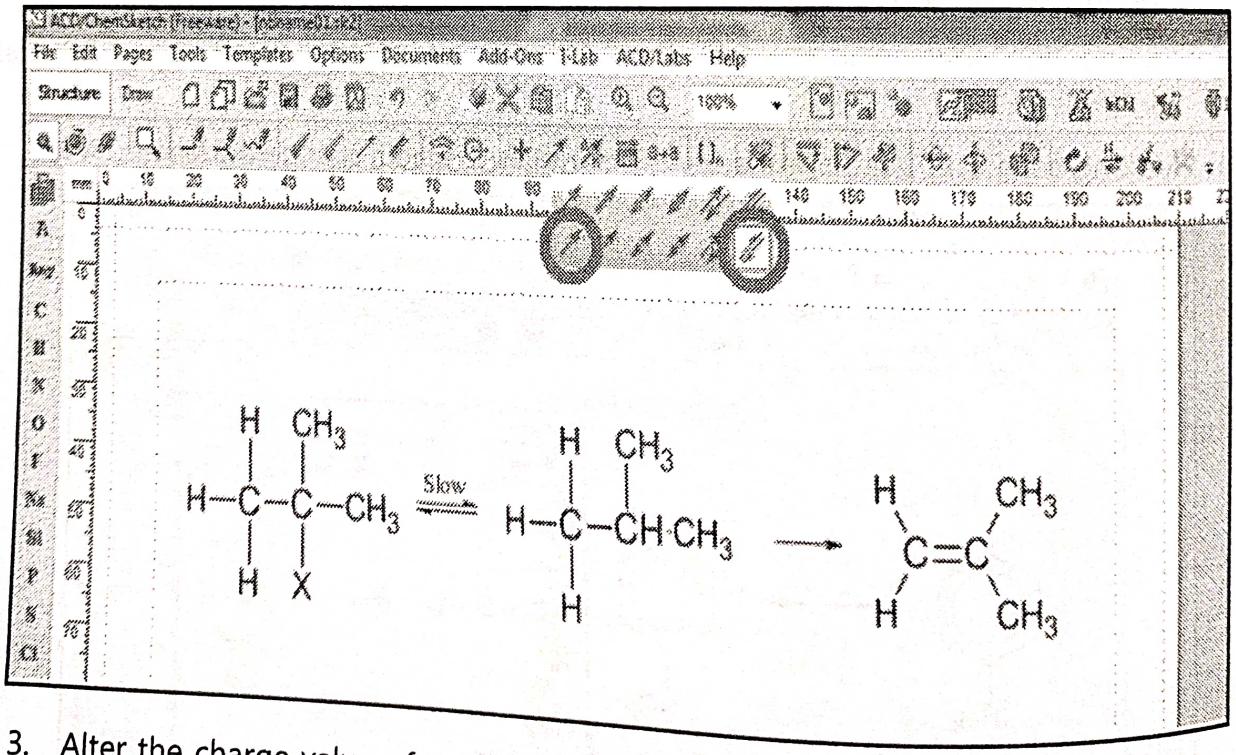
Once selected, click on a structure or shape to highlight it. To move the selected item, left click inside the box, and while holding down the button, move the mouse. To resize the structure, click on a handle, hold the left mouse button down, and move the mouse.

(IV) Drawing Mechanisms in ChemSketch:

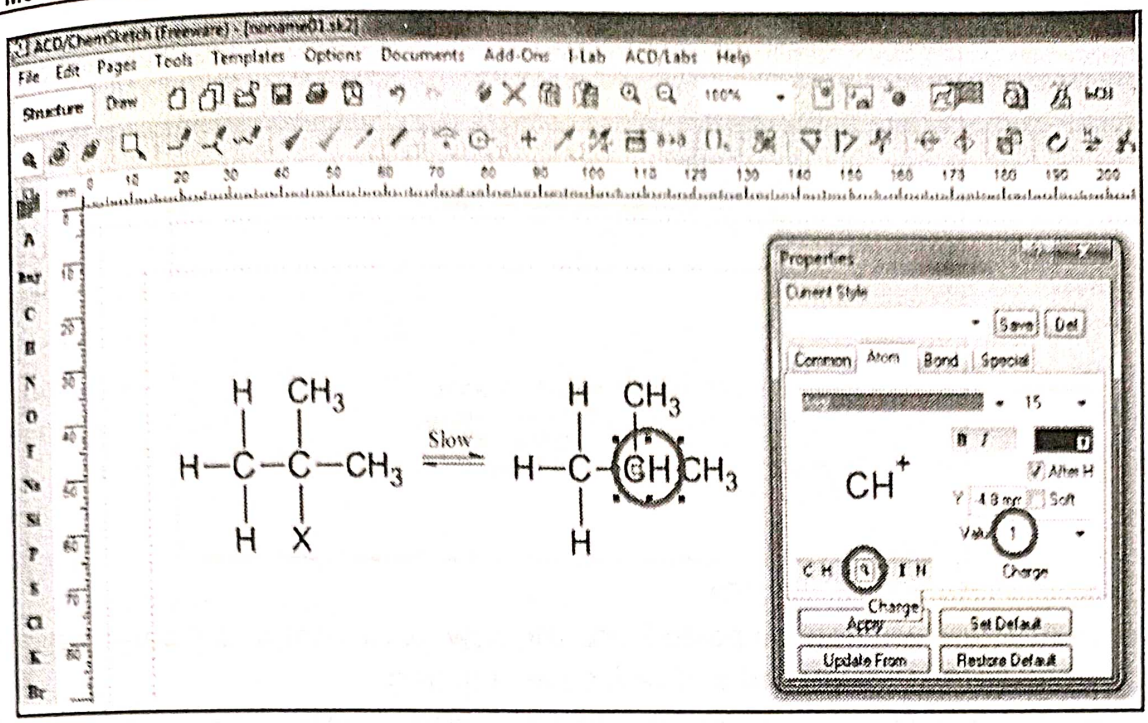
1. Draw all the basic structures involved in the mechanism.



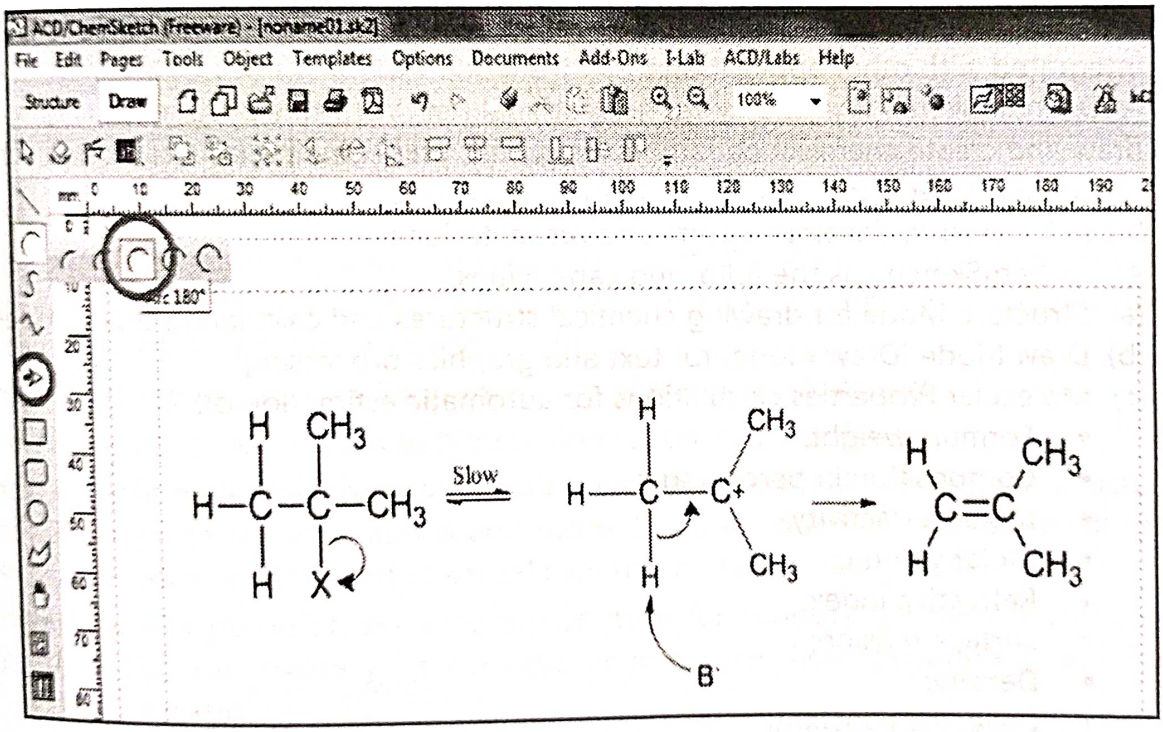
2. Draw reaction arrows using the 'Reaction Arrow' tool under the 'Structure' tab.



3. Alter the charge value of any atoms by double-clicking on the atom in question. In the 'Properties' dialog box, navigate to the 'Charge' tab as indicated above and set as required.

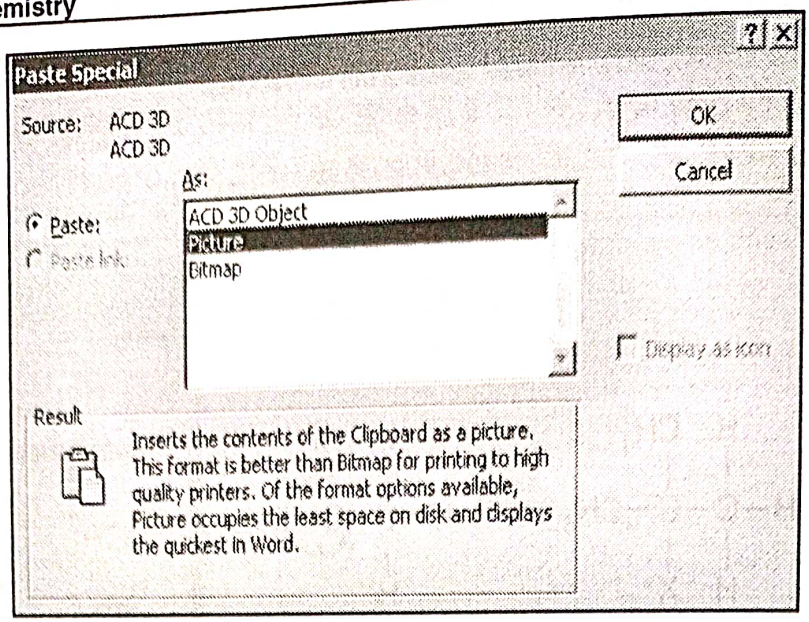


4. Finally, draw the mechanistic arrows by using a combination of the 'Arrow' and 'Arc' tools under the 'Draw' tab. Once this is done, grouping the structures is recommended.



Copying and Pasting from the 3-D Viewer: Into a Word® document

- Choose '**Menu**', '**Edit**', and choose '**Copy**'.
- Open the Word® document and '**Menu**', '**Edit**', 'Paste **Special**'. This will open another window.



- Choose '**Picture**' and click '**OK**'.
- Your structure will now be pasted into the new document as a picture, which can be cropped, formatted, moved and resized as required.
- Open the PowerPoint® slide and '**Menu**', '**Edit**', 'Paste'. The object can now be moved about and resized in the slide.

Applications:

1. ACD/ChemSketch is software for drawing in Chemistry from Advanced Drawing in Chemistry (Advanced Chemistry Development, Inc.) designed to be used alone or integrated with other applications.
2. ACD/ChemSketch is primarily for educational use. With this program it is possible to draw and create chemical equations, diagrams, and chemical structures and schemes of various molecular entities and chemical reactions.
3. It can be used to develop reports and presentations.
4. ACD/ChemSketch has the following capabilities:
   (a) Structure Mode for drawing chemical structures and calculating their properties.
   (b) Draw Mode (Draw Mode) for text and graphics processing.
   (c) Molecular Properties calculations for automatic estimation of:
   - Formula weight;
   - Composition in percentage;
   - Molar refractivity;
   - Molar volume;
   - Refractive index;
   - Surface tension;
   - Density;
   - Dielectric constant;
   - Polarizability;
   - Monoisotopic, nominal and average mass
5. ACD/ChemSketch can either stand alone as a drawing package or act as the "reference" for other ACD softwares such as NMR Predictor.
6. There are additional ACD software parts that are accessible through the interface.

EXPERIMENT 8.2

- **Aim:** Draw chemical structure and reaction by using ChemDraw.
- **Theory:** The computer program Cambridge Soft's ChemDraw is a user-friendly, and industry leader in chemical and reaction drawing. In addition, it analyses properties and provides sophisticated search and information functions.

ChemDraw is scientifically intelligent drawings tool developed in 1985 by David A. Evans and Stewart Rubenstein and PerkinElmer got its rights in the year 2011. ChemDraw Ultra is a downloadable application for drawing chemical structures for use in database queries, the preparation of graphics for lab reports and journal articles, providing electronic descriptions of molecules and reactions, and features advanced prediction tools.

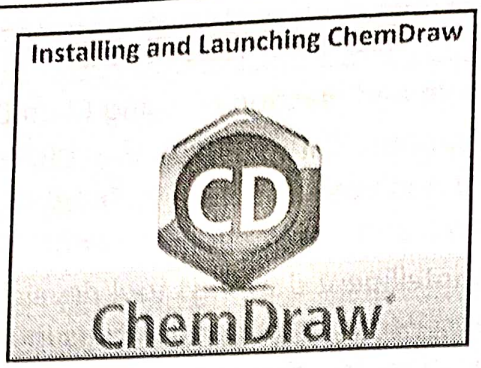
ChemDraw is operated by a combination of tools and commands that can be selected from a tools palette usually for a number of frequently used structural components (e.g. Benzene, Imidazole etc.) and menu, respectively.

- The cost of entry level commercial ChemDraw Prime 16.0 is about × 9.56 lacks with perpetual license and its academic price is about × 0.10 lacks with one-year license. ChemSketch is a comprehensive structure editor with a variety of tools and functionality that ease the communication of scientific and chemical information.
- Draw molecular structures, generate structures or copy/paste from ChemDraw.
- Easily and quickly include known molecules.
- Insert pre-drawn templates of amino acids, aromatics, steroids, sugars, and more.
- Search the Dictionary of >170, 000 systematic, trivial, and trade names.
- Easily draw reactions and complex chemical schemes (including biotransformation maps)
- Use graphical templates and tools to communicate chemistry and chemical biology concepts (e.g., chemical bond types, Lewis structures, molecular orbitals, Newman projections, peptide sequences, and more).
- Import and export structure files in a variety of standard file formats.
- Draw complex schemes, such as biotransformation maps, with ease.
- Draw organic molecules, organometallics, biomolecules, polymers, Lewis structures, 2D and 3D structure representations and more. Calculate quantities for chemical reactions (with automatically calculated chemical formula, molecular weight etc.).

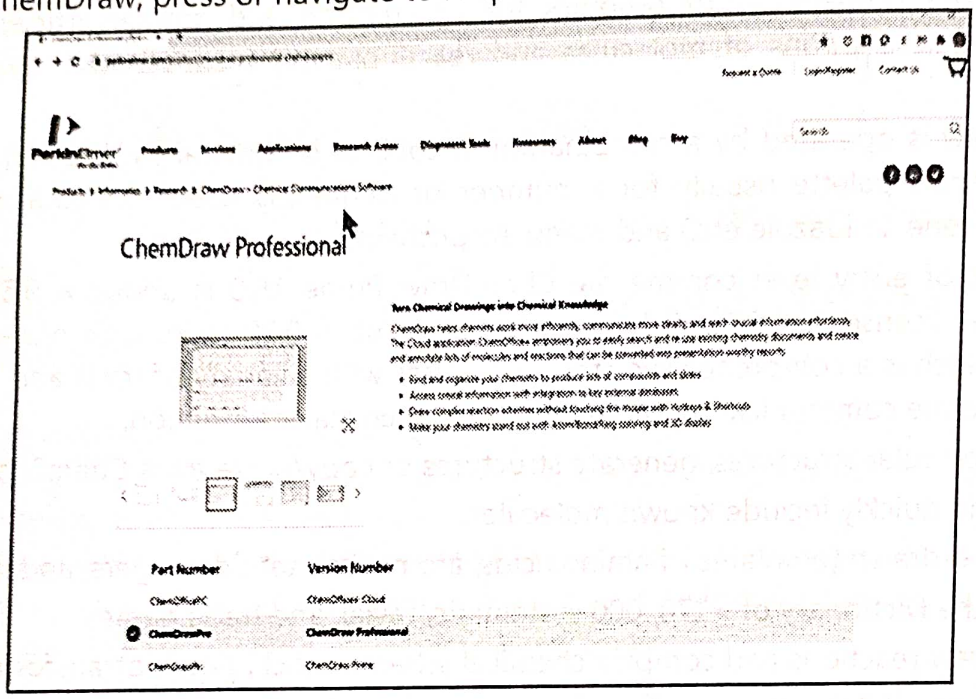
ChemDraw is a powerful, yet easy-to use, tool for producing chemical and biological drawings. You can create your own drawings or use those provided in the library of available templates.

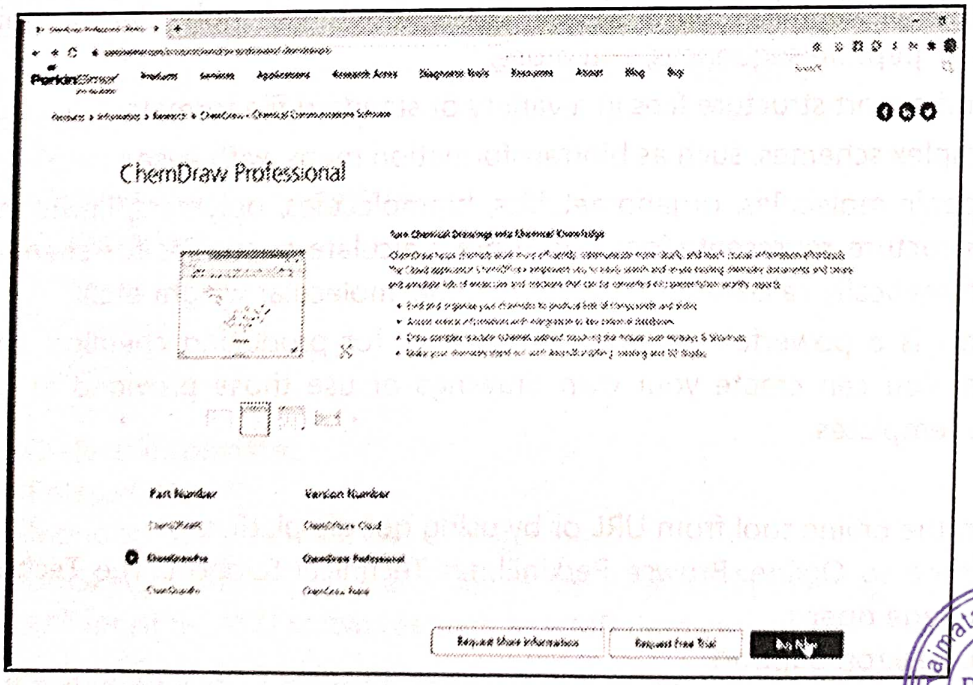
Procedure:

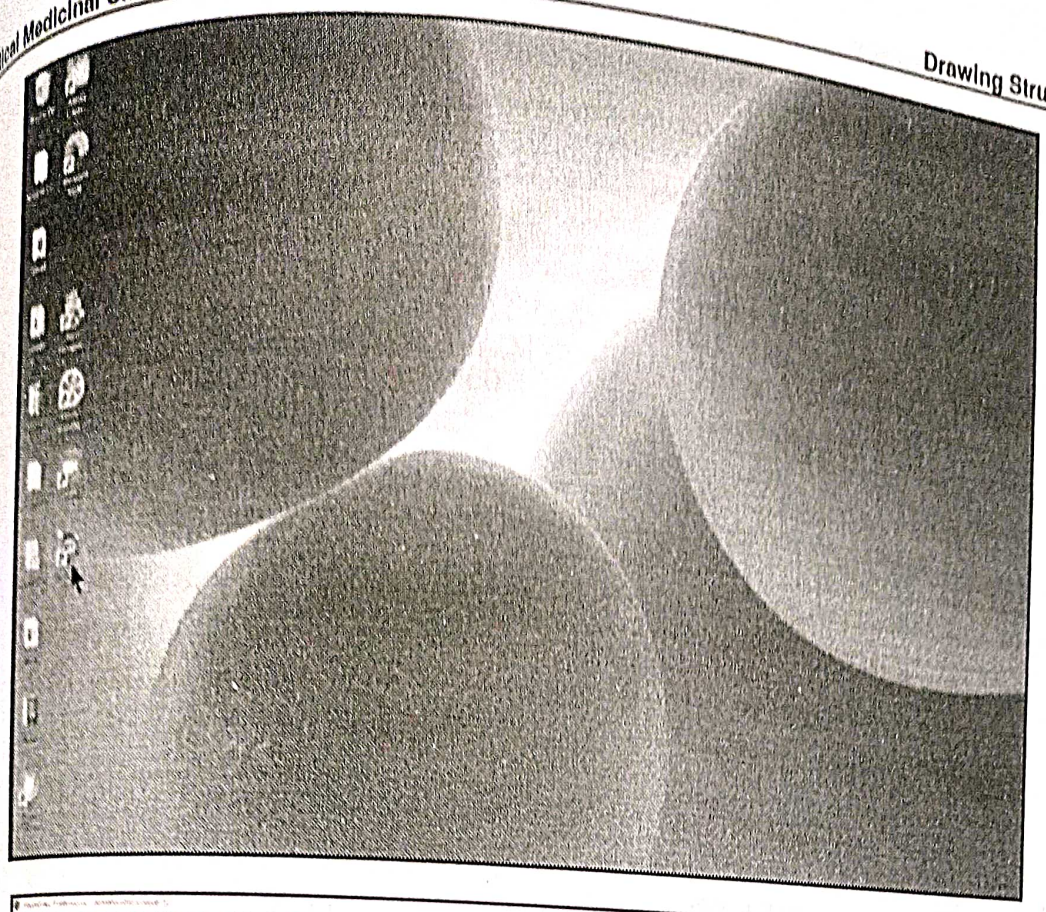
- Open the online tool from URL or by using google platform.
- Navigate to Online>Browse PerkinElmer Technical Support. The Technical Support Web page opens.
- Click Desktop Support.

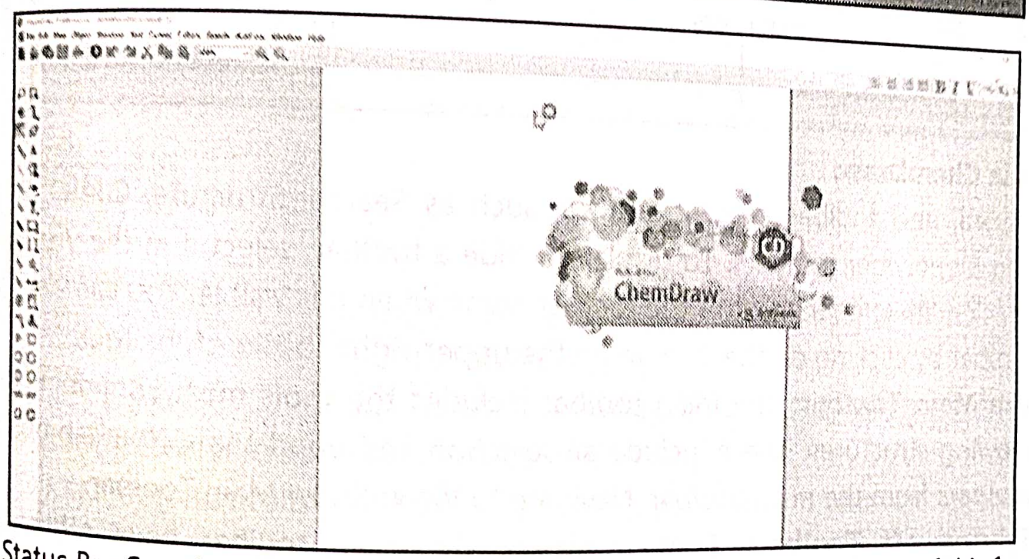


- In ChemDraw, press or navigate to Help>Contents

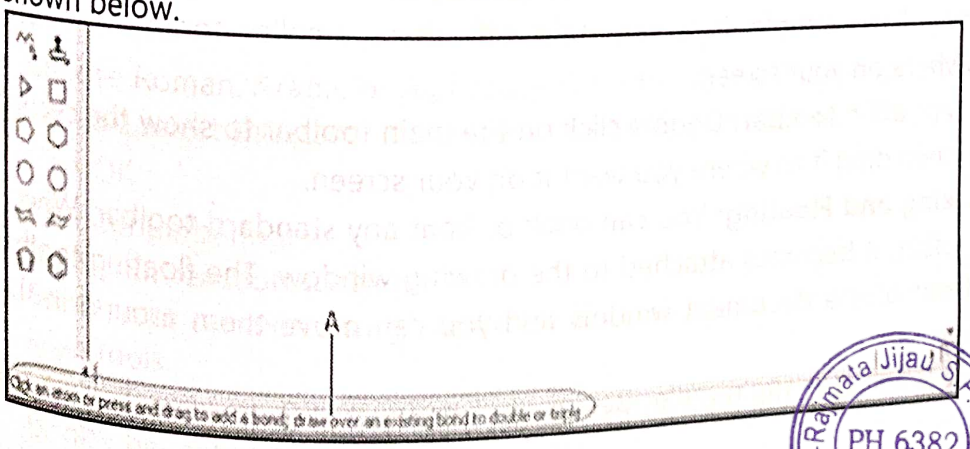




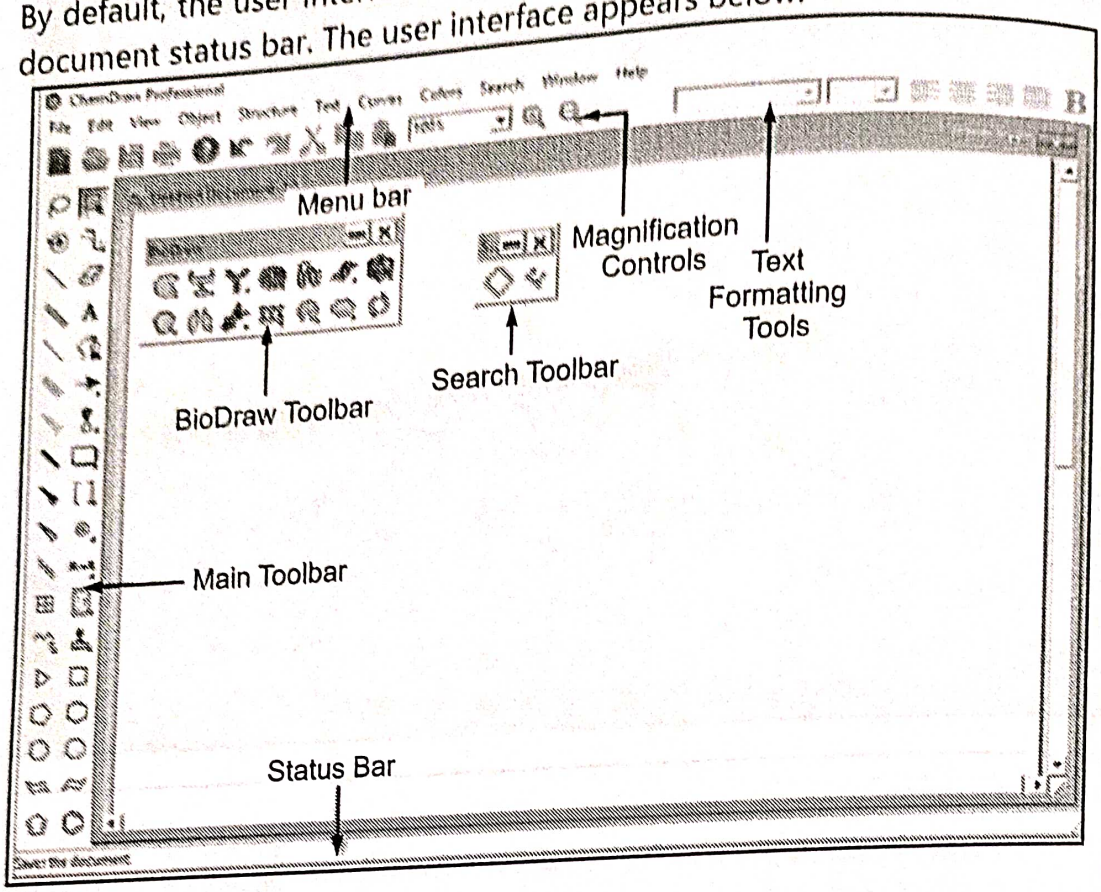




- Status Bar See the lower left corner of the ChemDraw window for useful information, as shown below.



- By default, the user interface displays commonly-used toolbars, the main menu, and document status bar. The user interface appears below:



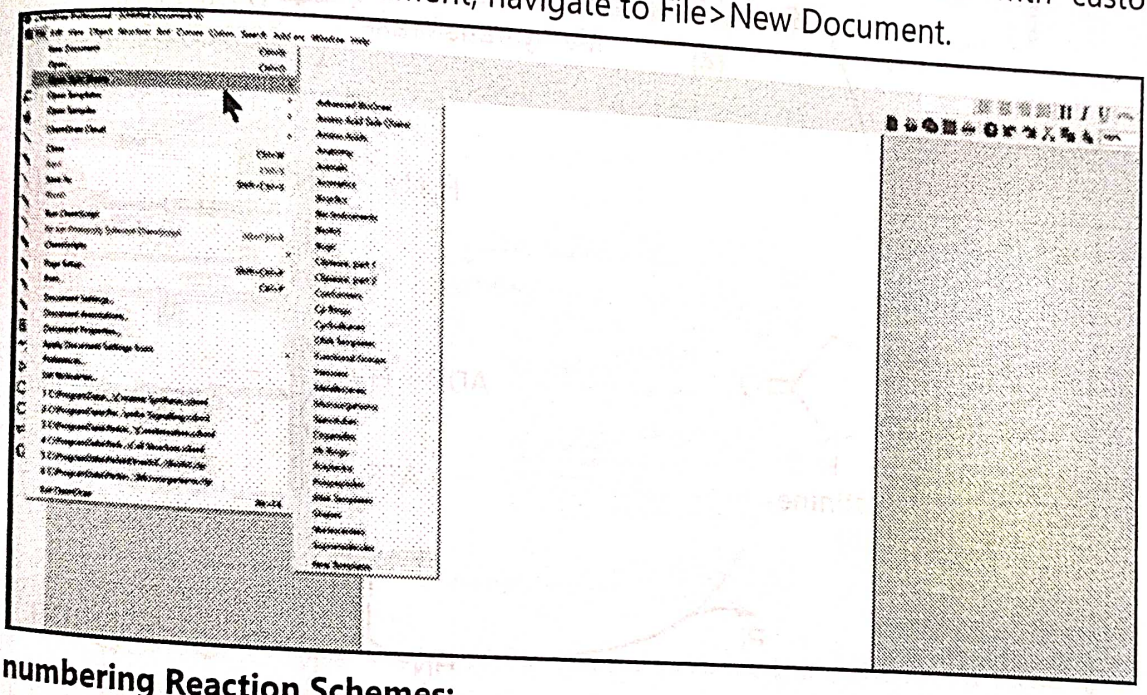
Toolbars in ChemDraw:

- Several new toolbars are introduced, such as Search, Structure, Curves, Windows, and Biopolymer toolbars. To display or hide a toolbar, select it in the View menu. A check mark appears next to the toolbar name when it is visible. You can also hide the toolbar by clicking on the 'X' icon on the upper-right corner of the toolbar.
- **The Main Toolbar:** The main toolbar includes the tools most commonly used for drawing structures. These include all selection and bond tools. You can open other toolbars from the main toolbar. Navigate to View>Show Main Toolbar.
- **Tearing off Toolbars:** Some tools on the main toolbar have other toolbars associated with them. These are indicated by a small black triangle in the lower right corner. For example: You can "tear off" these smaller toolbars and place them anywhere on your screen.
- **To tear off a toolbar:** Double click on the main toolbar to show the secondary tools and then drag it to where you want it on your screen.
- **Docking and Floating:** You can dock or float any standard toolbar. When you dock a toolbar, it becomes attached to the drawing window. The floating toolbars appear in front of the document window and you can move them around in the drawing window.
- **Double-clicking** the toolbar restores it to the last, or default, or docked position.

- **To dock a toolbar, do one of the following:** Click and drag the toolbar to any edge outside the drawing window. Right-click the toolbar and select Dock Toolbar.
- **To float a toolbar, do one of the following:** Double-click the docked toolbar. Click and drag the docked toolbar into the drawing window. Right-click the toolbar and select Float Toolbar.
- **BioDraw Toolbar:** The BioDraw toolbar contains drawing tools for adding biological and biochemical elements to your drawings.

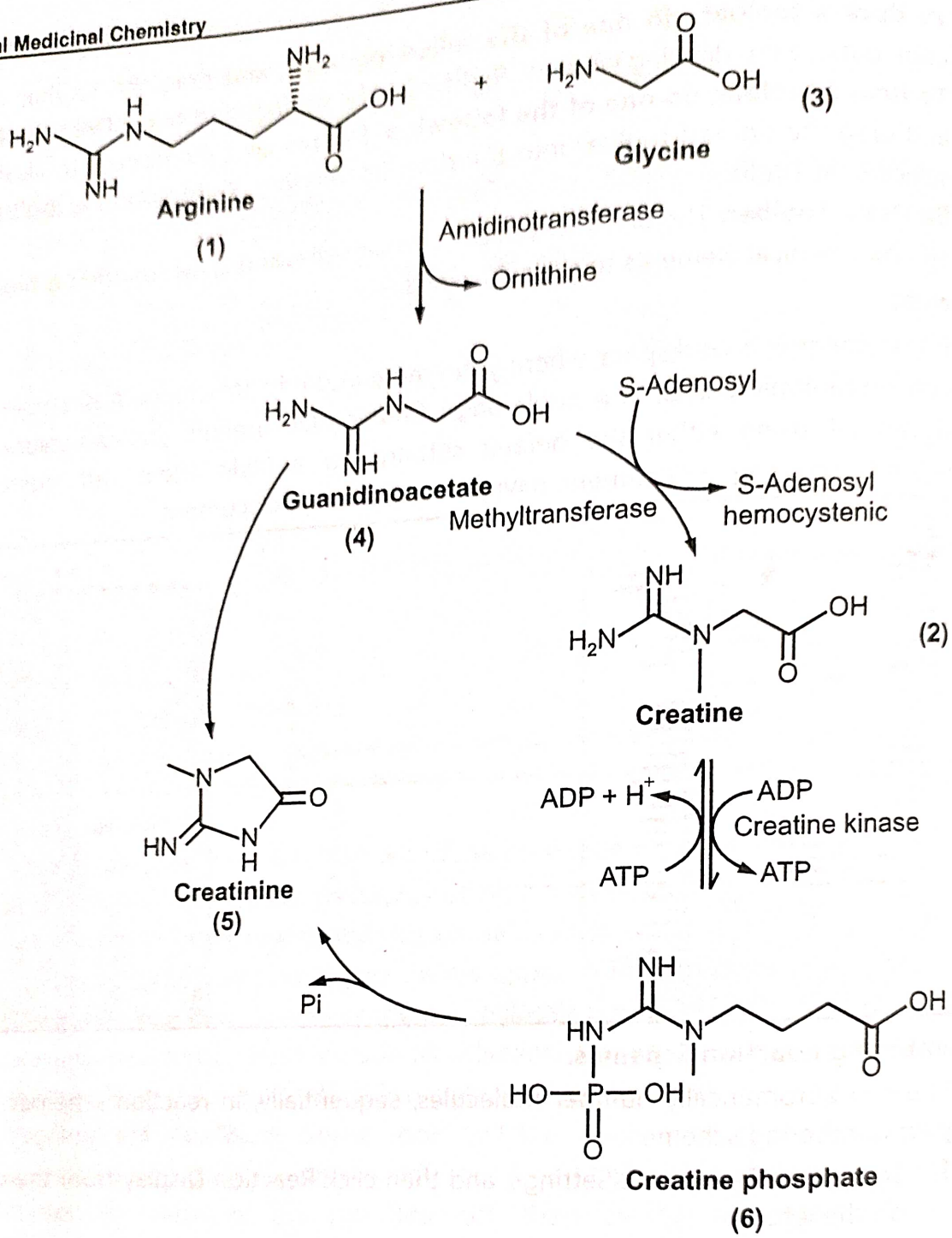
Documents:

- A document is a workspace where you create and edit structures. A document may contain multiple pages, or a single page. Creating Documents, you can create a new document using either the default settings, or a Style Sheet with customized settings. To create a document, navigate to File>New Document.



to numbering Reaction Schemes:

- You can automatically number molecules, sequentially, in reaction schemes. To set your numbering scheme:
  1. Select File>Document Settings, and then click Reaction Display from the options on the left.
  2. Choose Roman, Arabic or Alphabetic from the Numeric Style dropdown list. You can also select the starting number from the Starting From: field.
  3. Click OK.
- To use autonumbering:
  1. Draw your reaction scheme.
  2. Select your reaction using the Edit>Select All menu option or the marquee or lasso tools.
  3. Select Structure>Autonumber Reaction. Roman numerals or Arabic numerals display beneath your molecules.

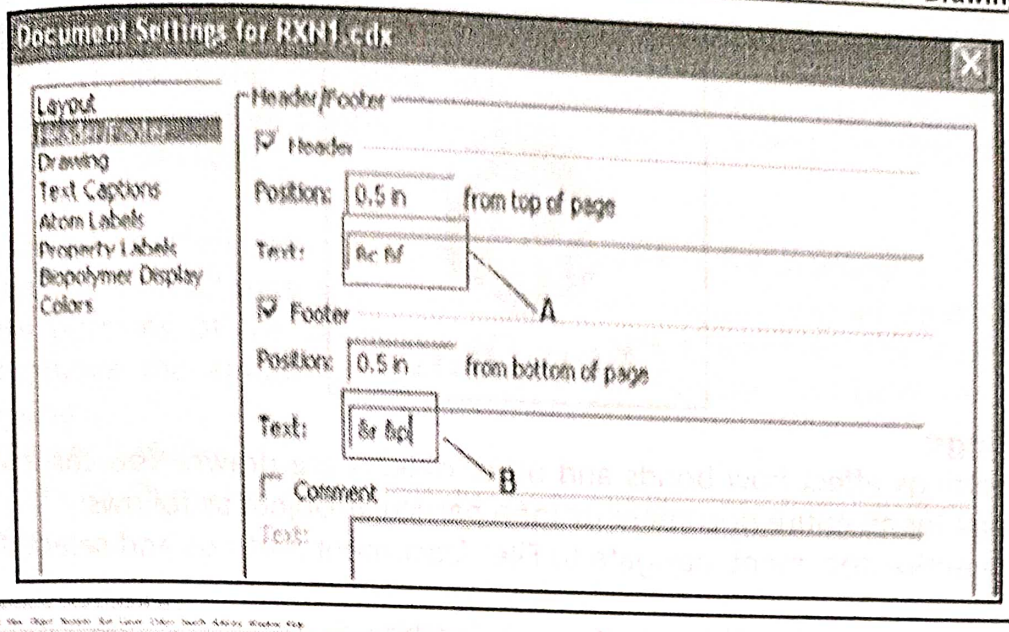


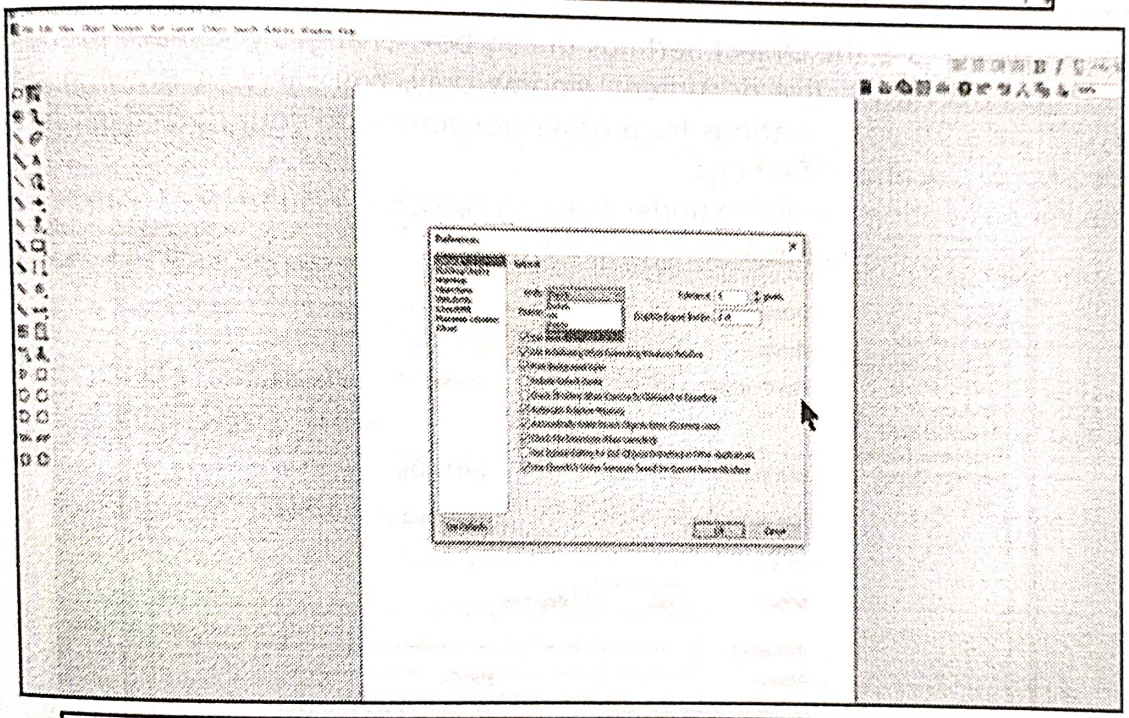
To remove auto numbering:

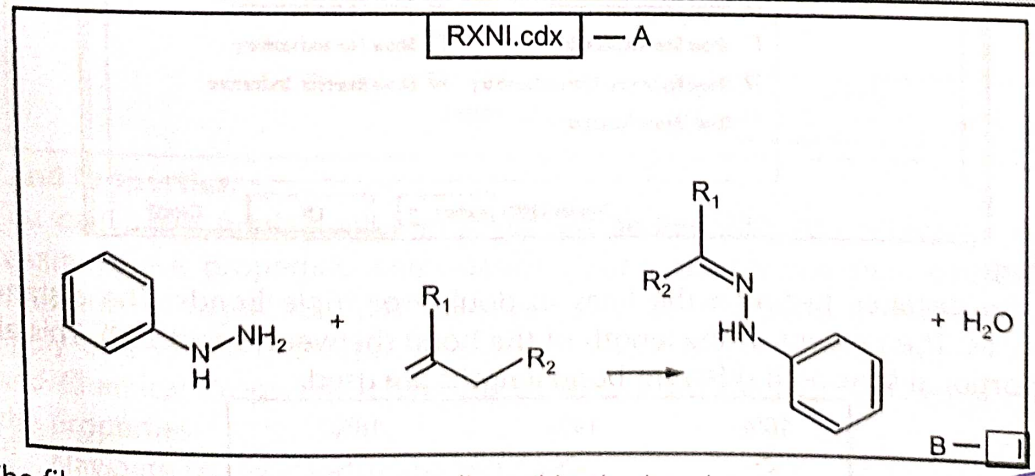
1. Select your reaction using the Edit>Select All menu option or the marquee or lasso tools.
2. Select Edit>Undo Auto number Reaction. The auto numbering removes from the structure.

Page Layout:

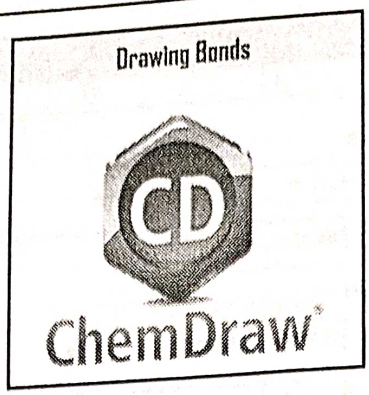
- Object alignment, page size, orientation, and other factors affect the presentation quality of your document.







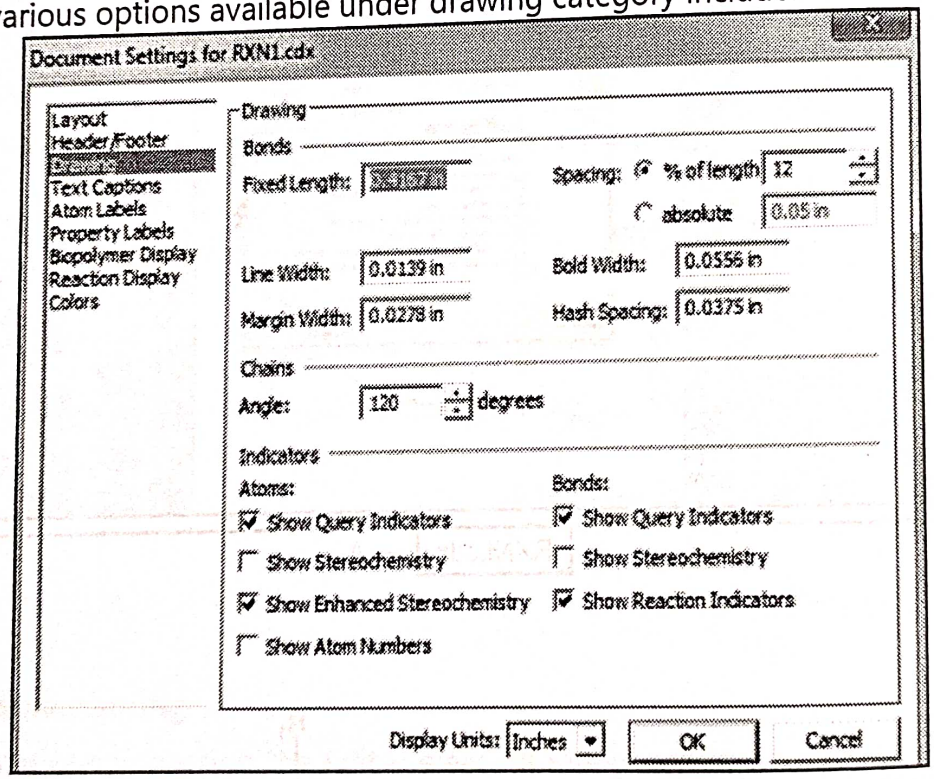
(A) The filename is displayed centre aligned in the header;
(B) The page number is displayed aligned right in the footer.



Drawing Settings:

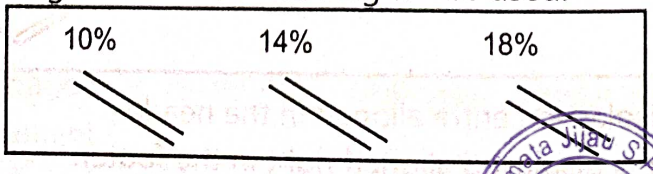
Drawing settings affect how bonds and other objects are drawn. You can configure the drawing settings for an entire document or for a particular object as follows:

- For the entire document, navigate to File>Document Settings and select the Drawing category.
- For an object, use the Object Settings dialog box. Changes you make to the drawing settings affect the active document window only. You can save drawing settings in style sheets. To apply settings from other documents to your document, navigate to File>Apply Document Settings.
- The various options available under drawing category include:



Bond Spacing:

- Set the distance between the lines in double or triple bonds. The distance is set either as: The percent of the length of the bond (between 1 and 100). This allows for proportional spacing if different bond lengths are used.



Bold Width:

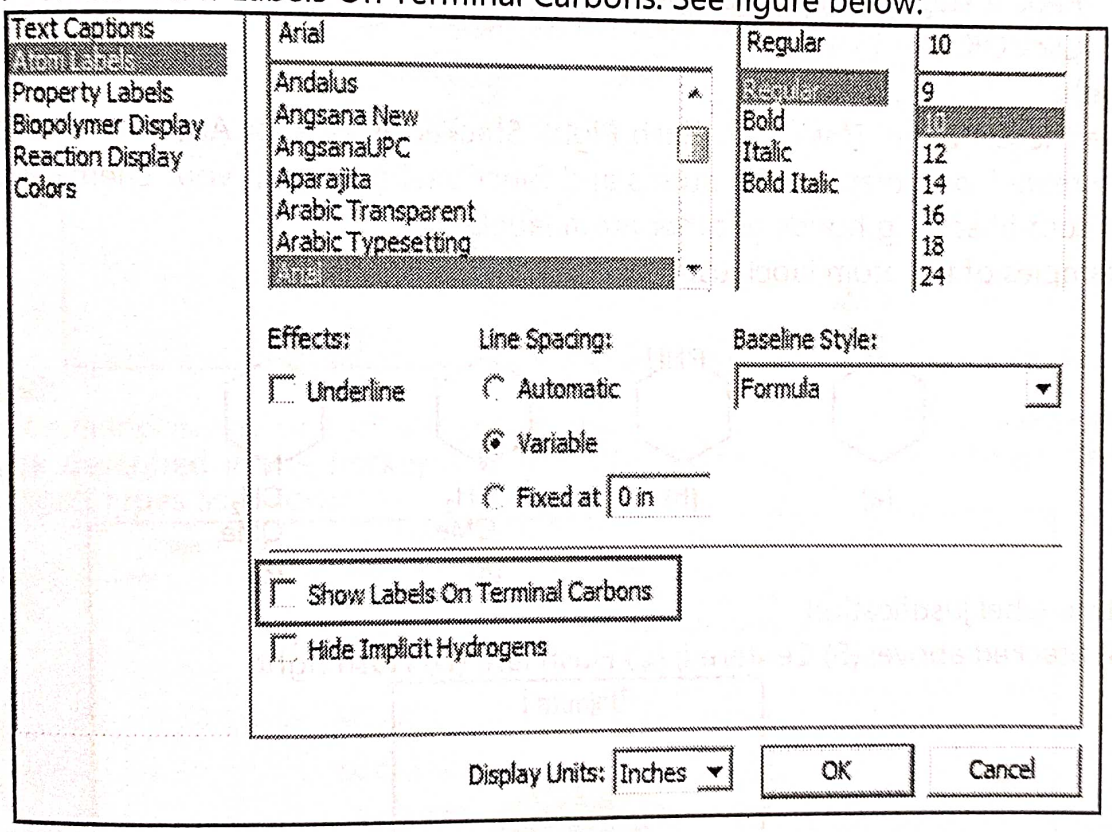
- Set the width of the line used when bold and wedge bonds are drawn. The Bold Width setting must be greater than the Line Width setting. The end of a wedge is 1.5 times the bold width.

Line Width:

- Set the width of all bonds, lines, and arrowheads in the drawing.
- Margin Width: Change the amount of space surrounding all atom labels that will erase portions of the bonds to which they are attached. The margin width also determines the amount of white space surrounding the front bonds in a bond crossing.

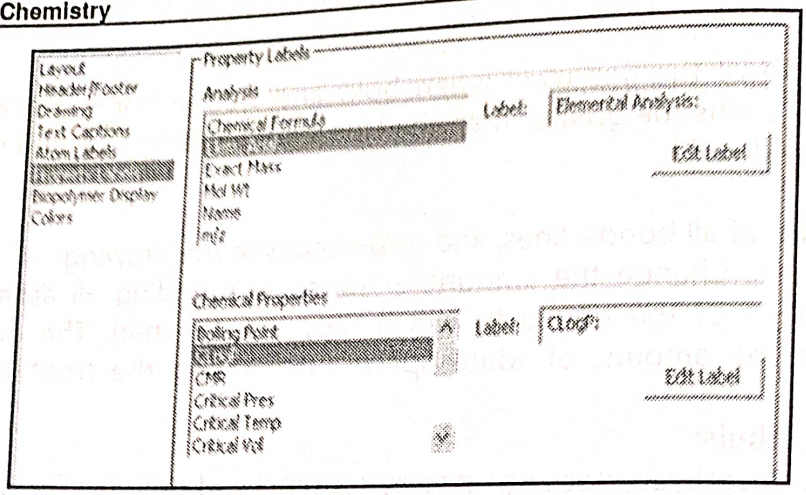
Terminal Carbon Labels:

- By default, ChemDraw does not display terminal carbons. To display terminal carbon labels:
  1. Navigate to File>Document Settings.
  2. Select the Atom Labels category.
  3. Select Show Labels On Terminal Carbons. See figure below:



Analysis and Properties:

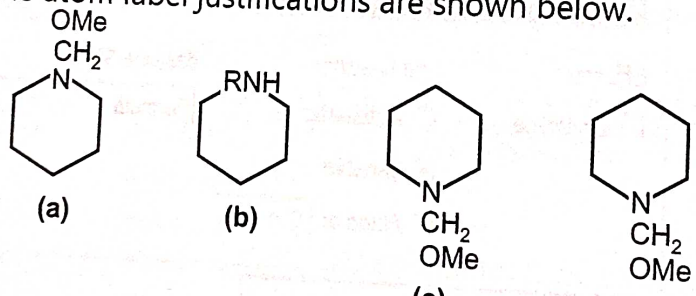
- You can paste fundamental structure properties into your drawing. You can also rename these properties when desired. For instance, you may consider renaming "Molecular Weight" to "MW" to save room on the page. The changes you make apply only to the properties you paste in your drawing. The names in the Analysis and Chemical Properties dialog boxes remain unaffected. To change the names of the properties:
  1. Navigate to File>Document Settings.
  2. Select the Property Labels category. See figure below:



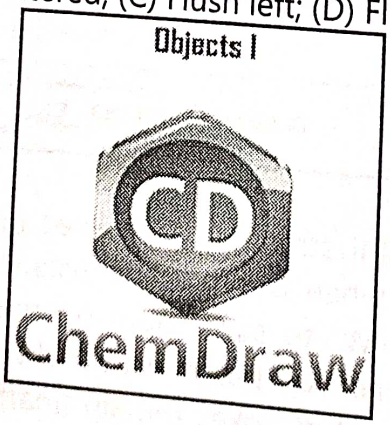
3. In the Analysis window, select the property to rename.
4. Click Edit Label and type a new name in the Edit Label text box. Click OK.
5. Type the new name, and click OK.
6. Repeat step 4 for other properties.
7. Click OK.

Atom Labels:

- Use the Centered, Flush Left, Flush Right, Stacked Above, or Automatic justifications to create labels that identify atoms and functional groups in your chemical structure without obscuring bonds or other atom labels.
- Examples of the atom label justifications are shown below.



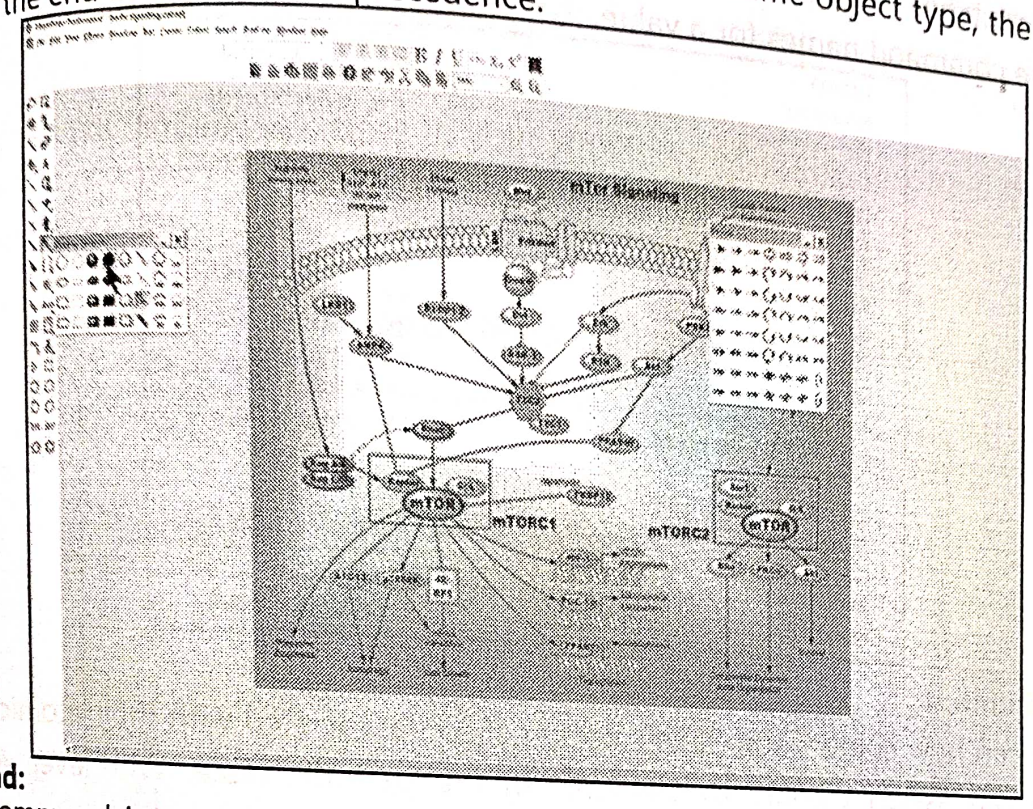
- Atom label justification.
  (A) Stacked above; (B) Centered; (C) Flush left; (D) Flush right.



Applying object settings:

- You can apply settings from another document to the selected objects in the current document. You can apply the chosen settings to the selected objects, or to all new objects drawn in the current document.

- To apply object settings:
  1. Select the object.
  2. Go to Object>Apply Object Settings from and choose the document from which to apply the settings. A dialog box appears.
  3. Do one of the following: To selected object only, click No. To selected object and any new objects you draw, click Yes.
- If a key appears more than once in the file for the same object type, the one closest to the end of the file takes precedence.



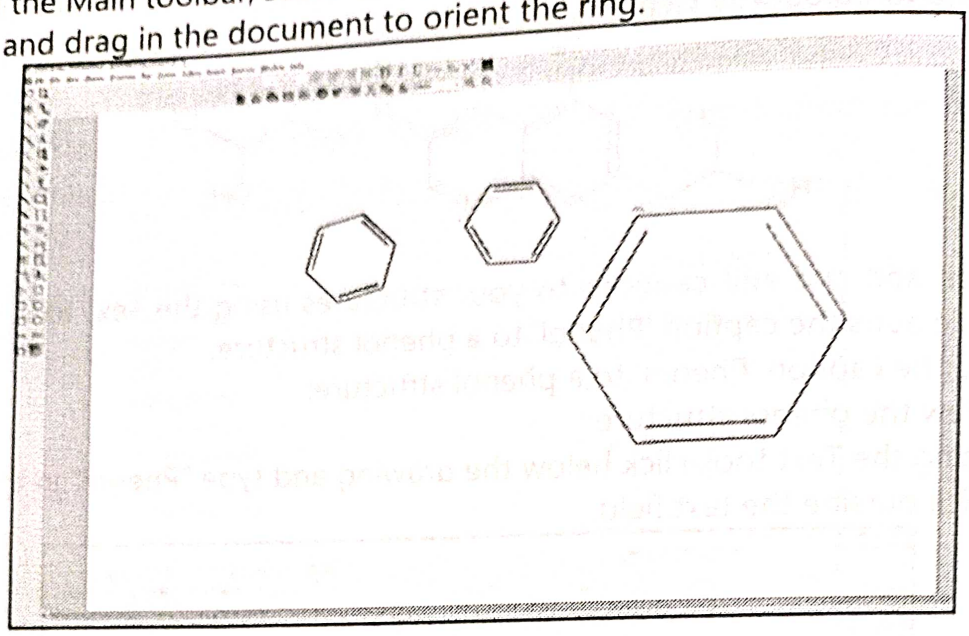
Command:

- Command is any one of the predefined command names. All available commands are described in the hotkeys.xml file. The command ID's are defined based on the object types as follows:

Object Type	Command ID	Description
Atom	LABELTEXT	Sets the label for the atoms text
	SPROUT	Addition of bonds to an atom
	CHARGE	Changes the charge of an atom
	FREE_SITE	Increment/decrement free sites of an atom
	UPTO_SITE	Increment/decrement the UpTo number of substituents of an atom
	EXACT_SITE	Increment/decrement the number of substituents of an atom
	ATOMNUMBER	Show/hide the atom numbers
Bond	ATTACHMENTPOINT	Sets the value of the attachment point
	BONDORDER	Sets the bond order
	BONDDISPLAY	Sets the bond display
	BONDPOSITION	Sets the position of bonds
	BONDDOUBLEPOSITION	Sets the alignment for double bonds
Generic	FUSERING	Fuses a ring to a bond
	DIALOG	Display a dialog
AA1	TOOLMODE	Changes the current tool
	AA1	Sets the label for the single letter amino acids
Object Type	**Command ID**	**Description**
DNA	DNA	Sets the label for the DNA sequence
RNA	RNA	Sets the label for the RNA sequence

To draw a ring:

1. From the Main toolbar, select a ring tool.
2. Click and drag in the document to orient the ring.

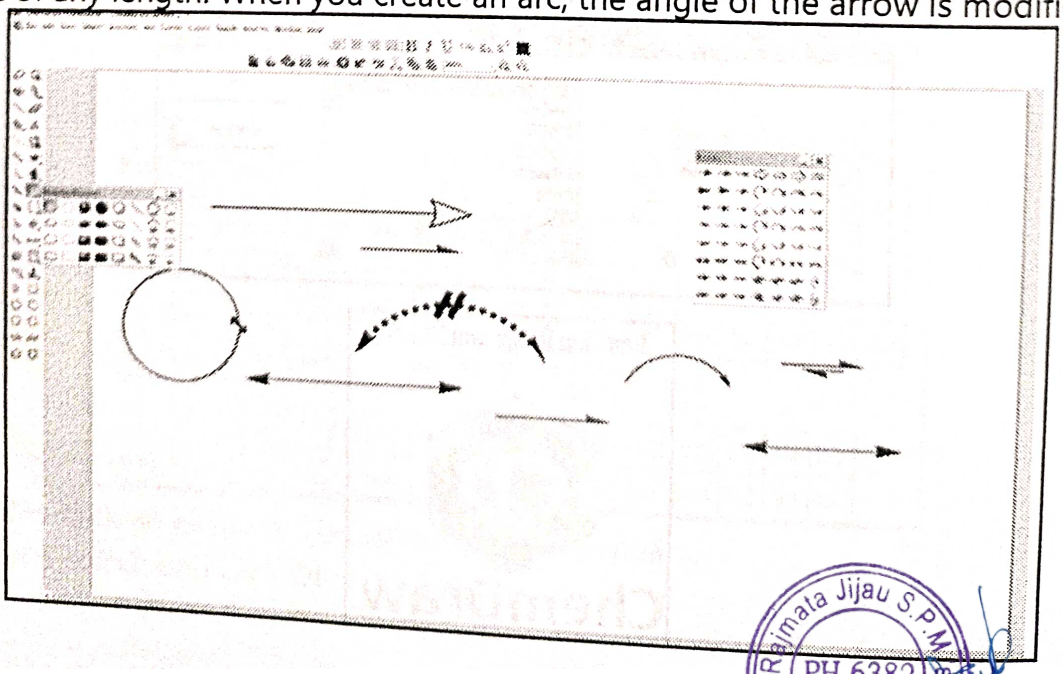


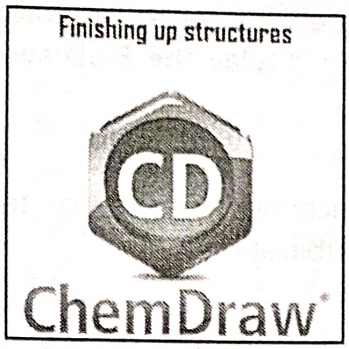
Chains:

- You can draw hydrocarbon chains using either the Acyclic chain tool or the Snaking chain tool. Use the Acyclic chain tool to draw straight hydrocarbon chains.
  1. Select the Acyclic chain tool.
  2. Click and drag in the document window in the direction you want the chain to grow. The number at the end of the chain indicates how many atoms you have drawn.

Arrows:

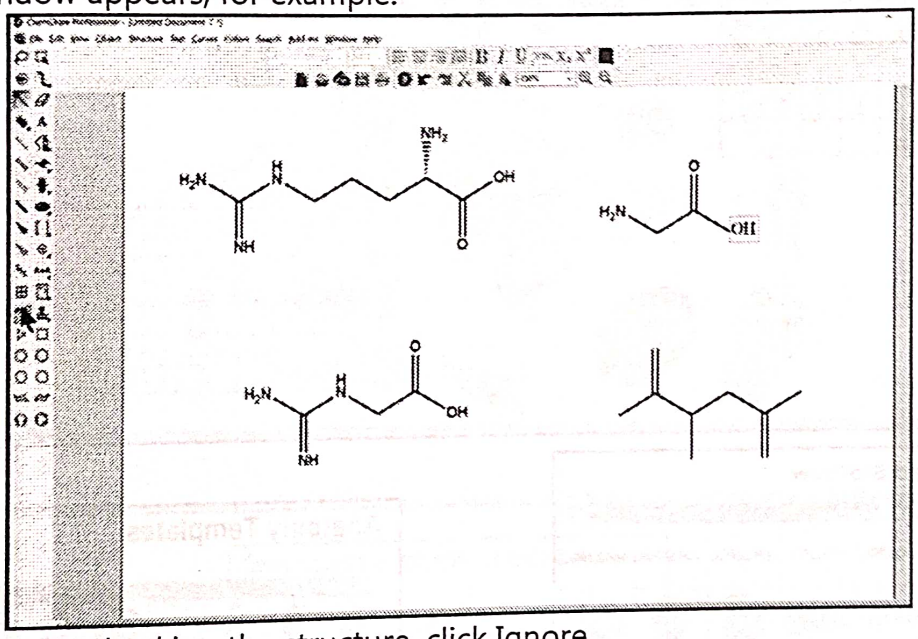
- You can use arrows to show the conversion of reactants to products and to indicate electron flow. You can customize arrows not only for length and angle, but for arrowhead width and shape. You can also drag an arrow from its middle to create an arc of any length. When you create an arc, the angle of the arrow is modified.





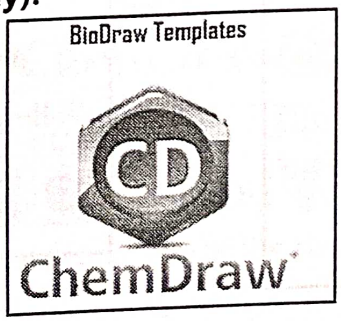
Checking Structures:

- You can check the chemistry of a selected structure, part of a structure, or caption (in Formula style) with the Check Structure command. The structure is checked using normal valences, elements, and defined nicknames.
- To check the valences of all selected atoms in a structure:
  1. Select a structure, part of a structure, or caption.
  2. Navigate to Structure>Check Structure. If a structure is incorrect, a message window appears, for example:



  3. To continue checking the structure, click Ignore.
  4. To ignore all subsequent errors, click Ignore All.
  5. To stop checking for errors, click Stop.

BioDraw (Professional Level only):

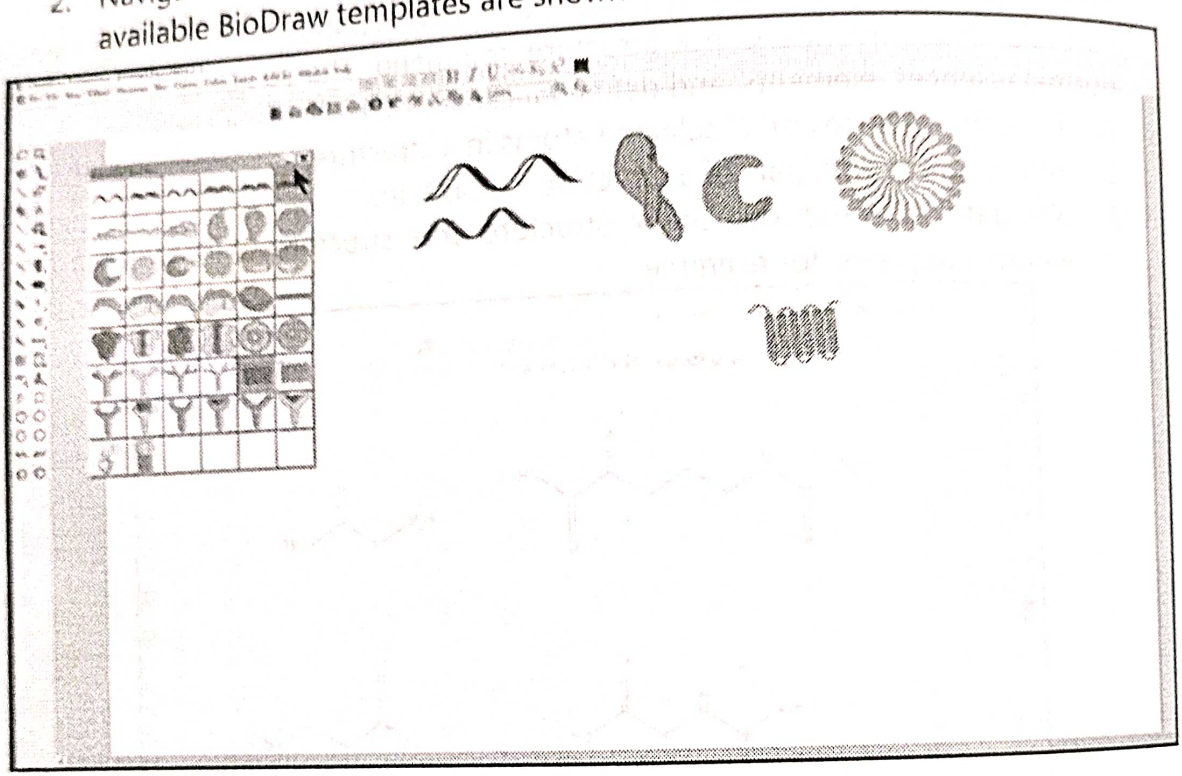


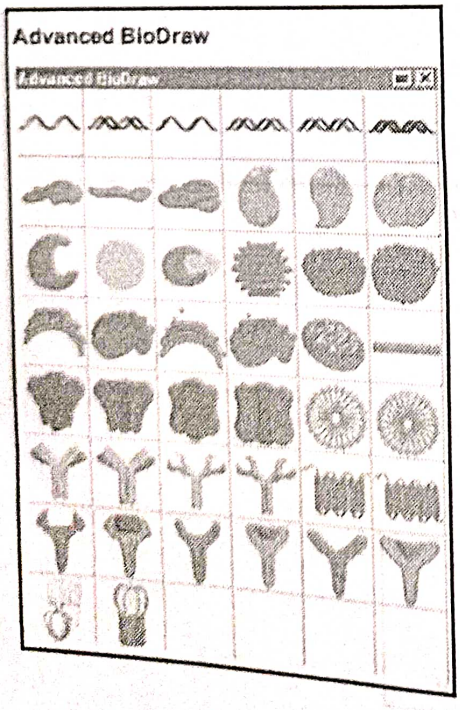
- ChemDraw includes a variety of tools for drawing metabolic pathways, such as enzymes and receptors. To display the BioDraw toolbars, navigate to View>Show BioDraw Toolbar.

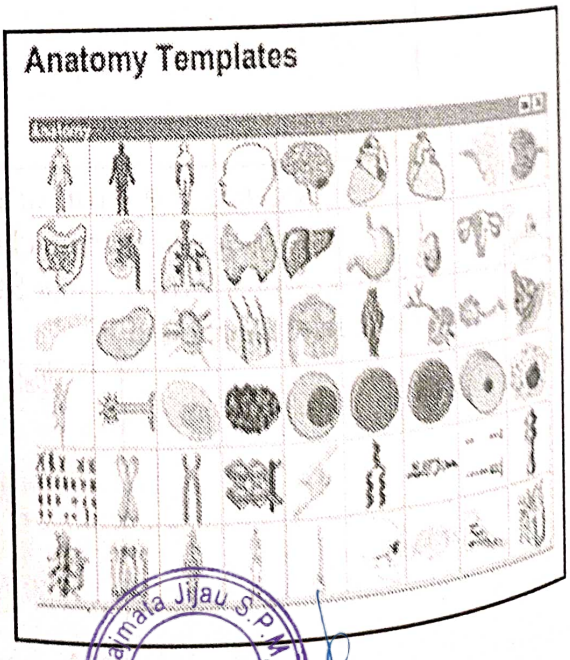
BioDraw Templates:

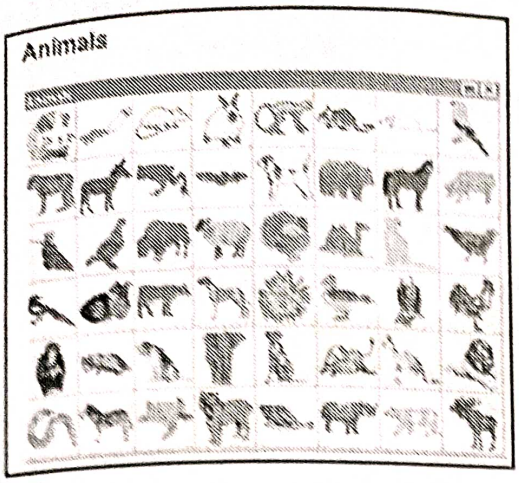
- ChemDraw Professional includes a variety of templates for illustrating biological systems in full colour for publication.

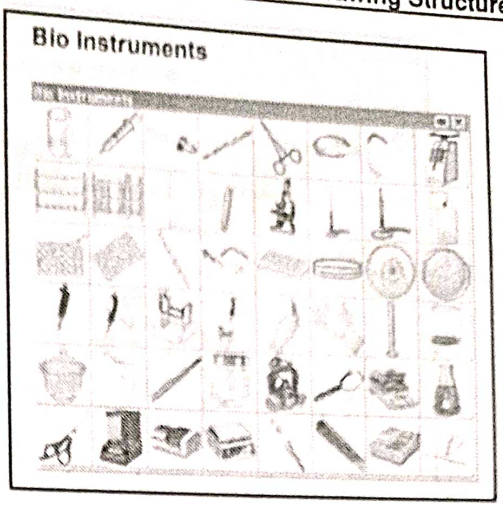
1. To open a template:
2. Navigate to View>Templates. Select the template toolbar you want. Some of the available BioDraw templates are shown below.

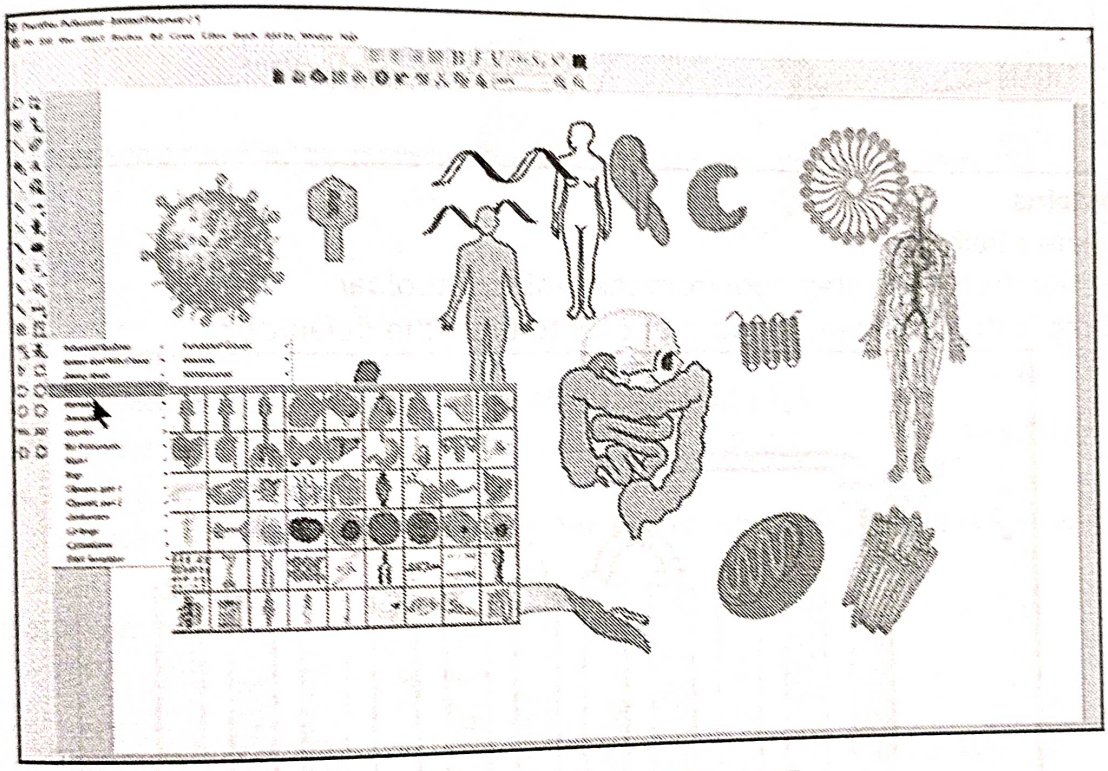


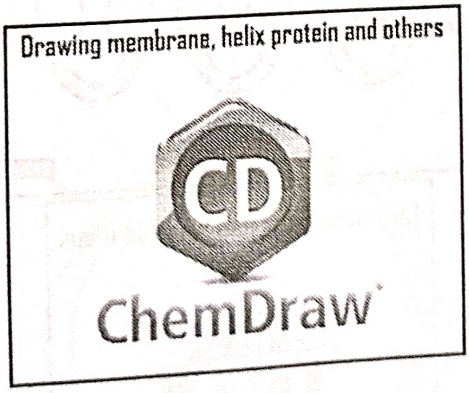






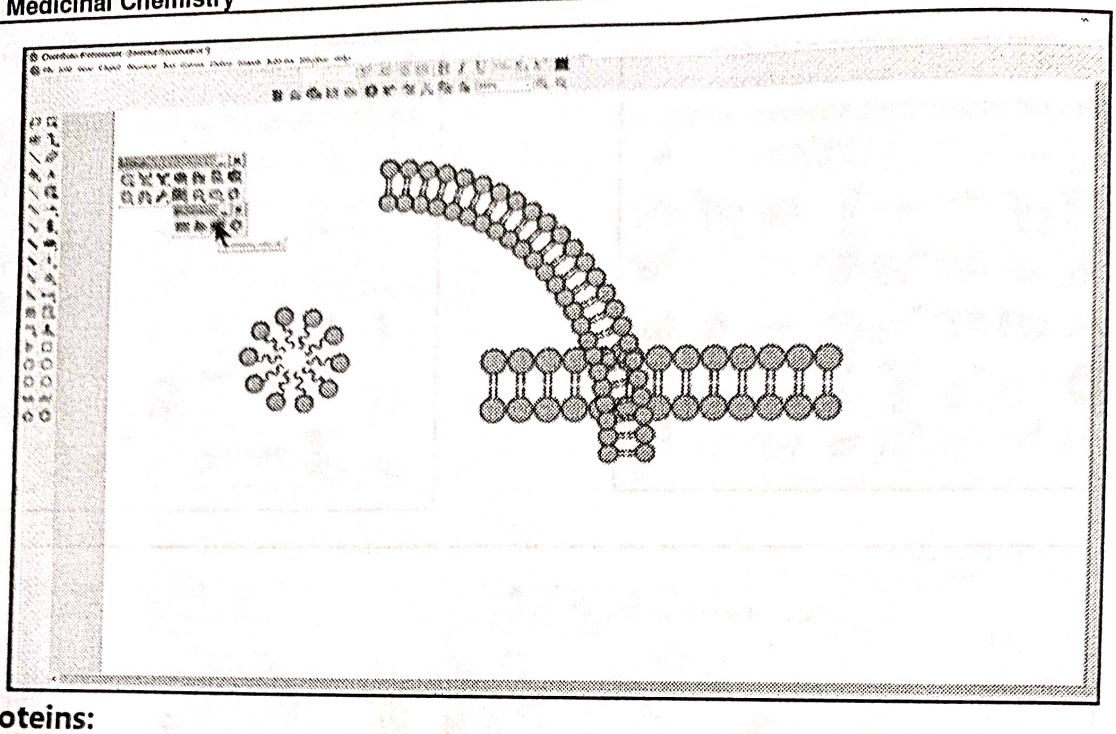






Membrane Line:

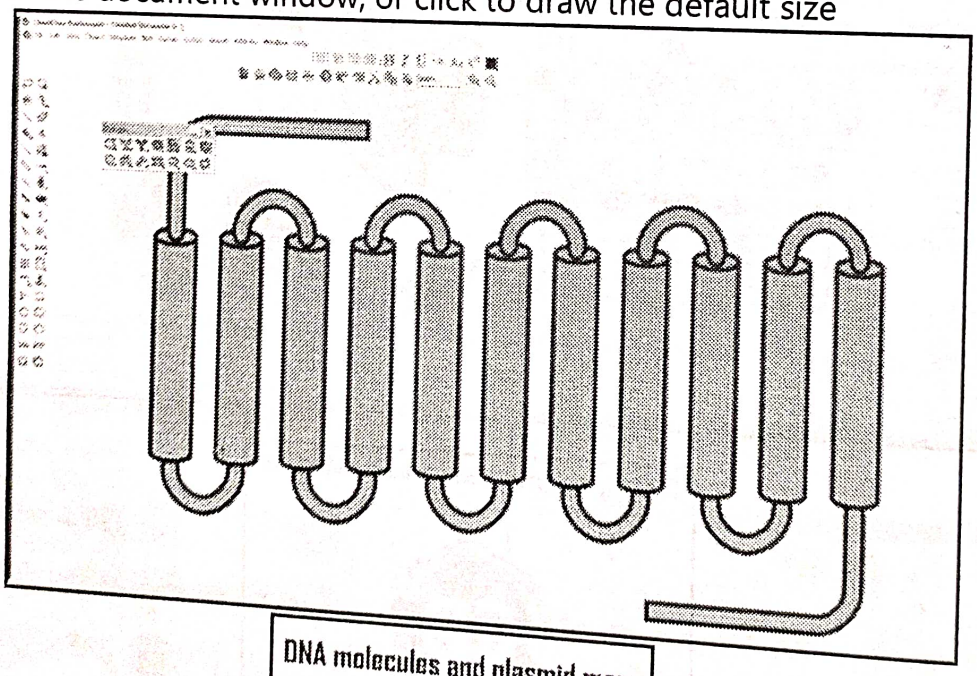
1. Select the membrane line tool from the BioDraw toolbar.
2. Click and drag to draw a membrane line of the size you want or click for the default size.



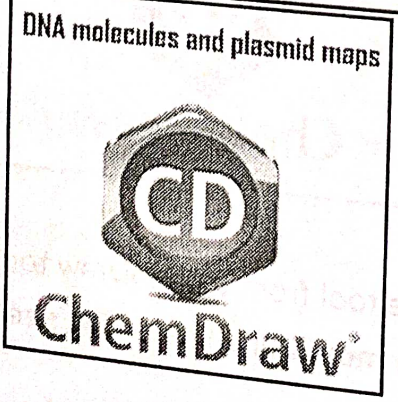
Helix Proteins:

To create a helix protein:

1. Select the Helix Protein tool from the BioDraw toolbar.
2. Drag in the document window, or click to draw the default size



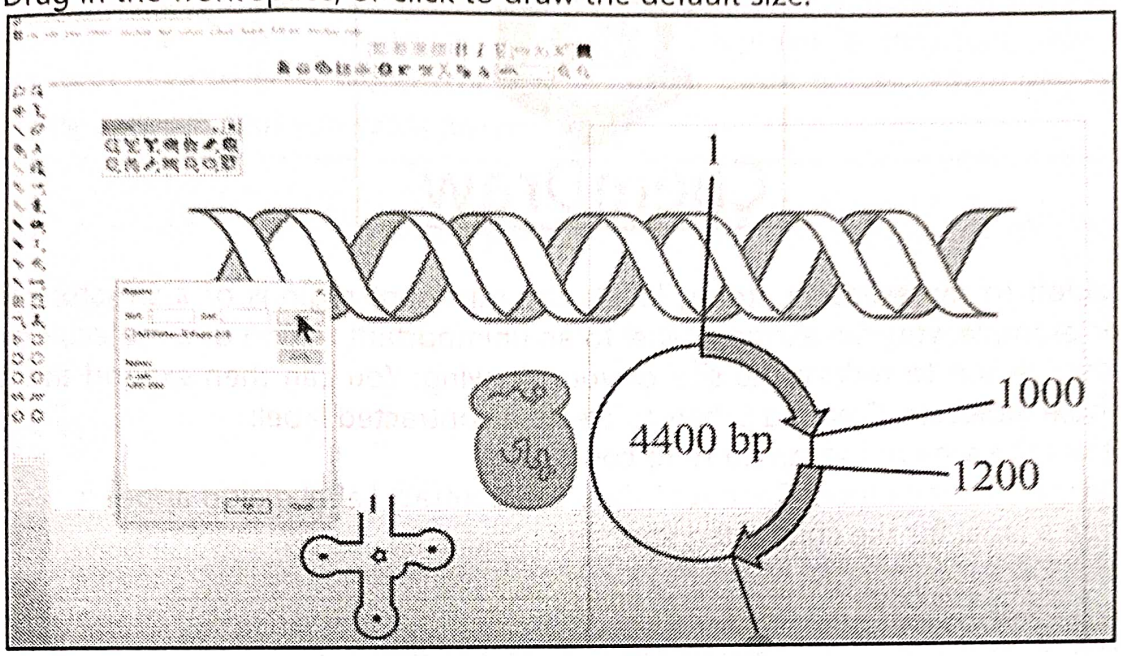
DNA molecules and plasmid maps



DNA Molecules:

To create a DNA molecule:

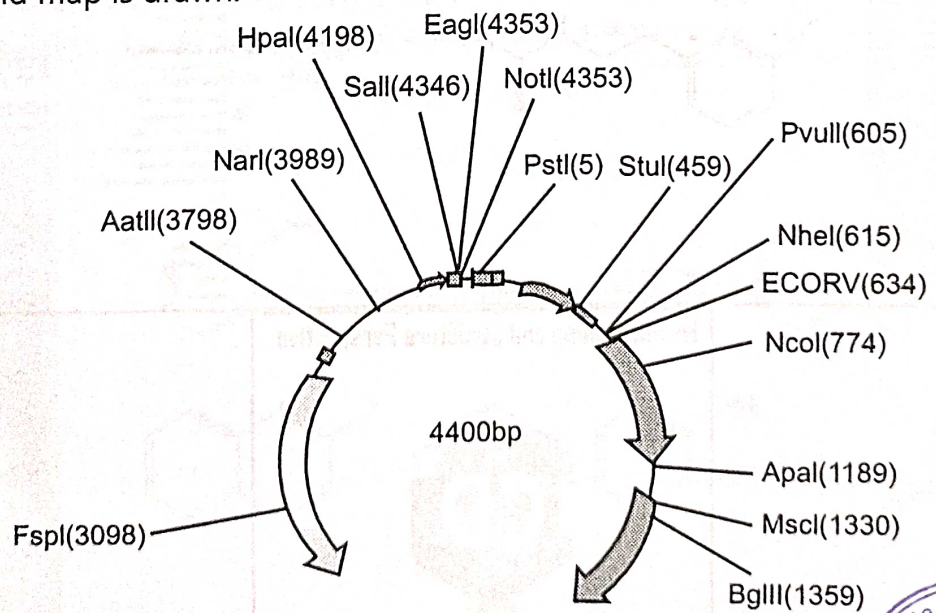
1. Select the DNA tool from the BioDraw toolbar.
2. Drag in the work space, or click to draw the default size.



Creating a Plasmid Map:

1. From the BioDraw Toolbar, select the Plasmid Map tool.
2. Click in the drawing window where you want the plasmid map. The Insert Plasmid Map dialog appears.
3. In the Insert Plasmid Map dialog, enter the number of base pairs in the map, and click OK.

The plasmid map is drawn.



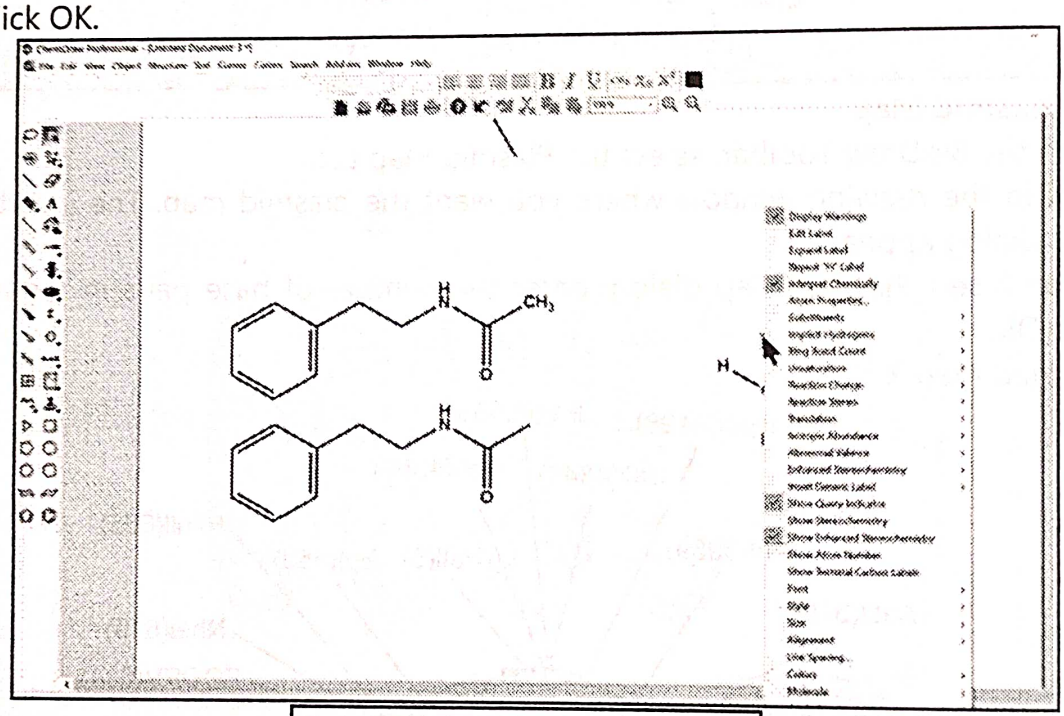
Labels and Atom numbering

ChemDraw

Labels:

In addition to representing atoms, labels can represent regions of a structure that you define. For example, you can assign a label to an unimportant region of a molecule and then contract that region to reduce the size of your drawing. You can then expand the label, to see the whole molecule. Creating Labels to create a contracted label:

1. Select the area of the structure to contract.
2. Navigate to Structure>Contract Label. The Contract Label dialog appears.
3. Type a label for the contracted structure.
4. Click OK.

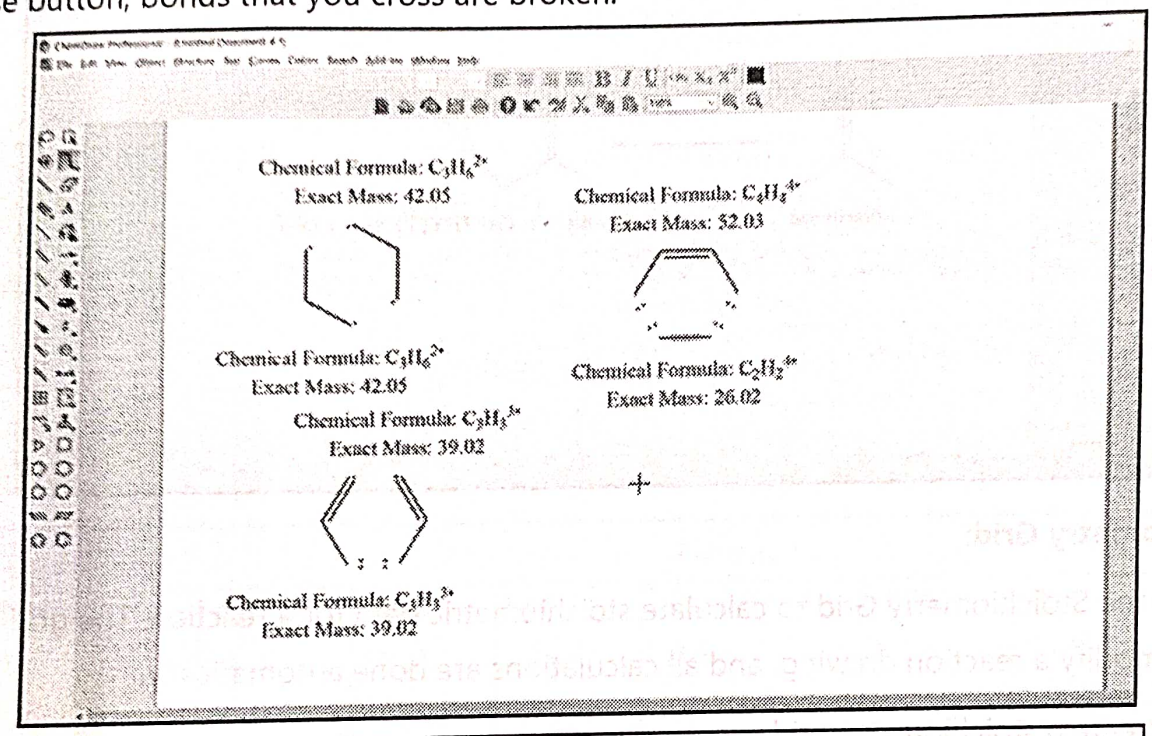


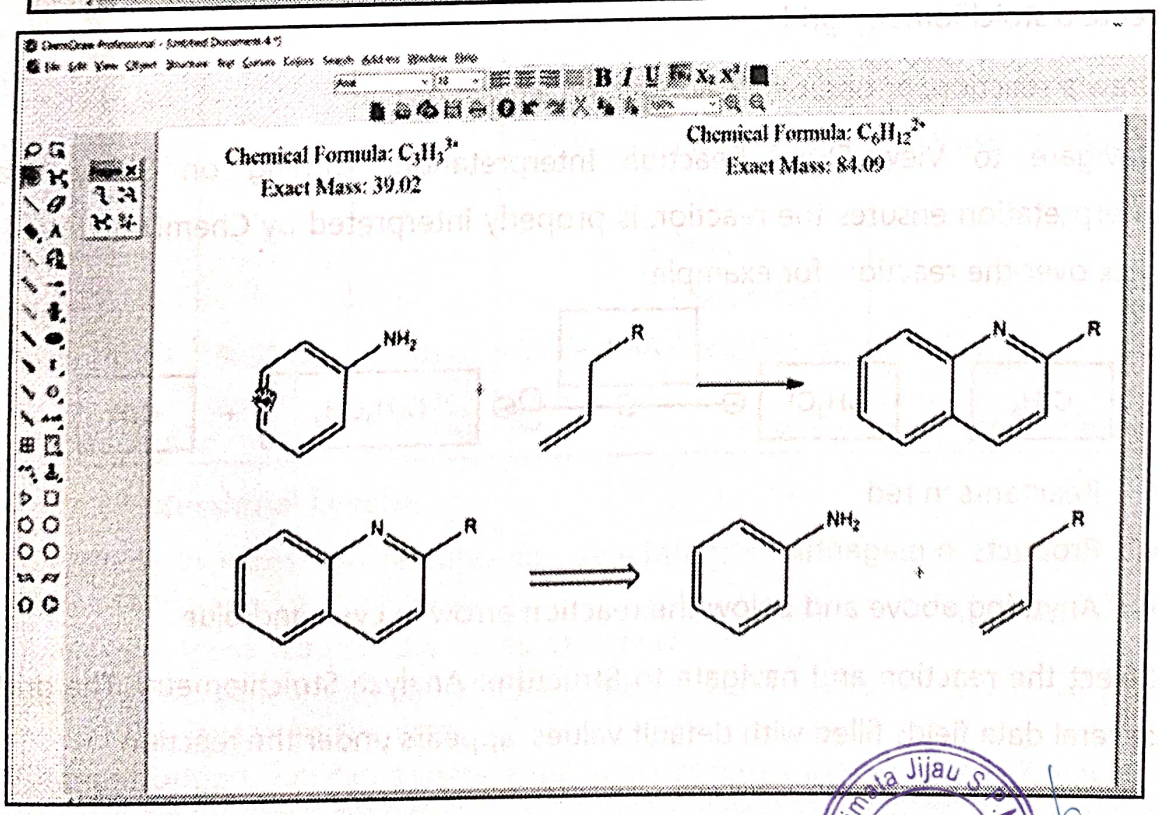
Fragmentation and Structure Perspective

ChemDraw

Mass Fragmentation:

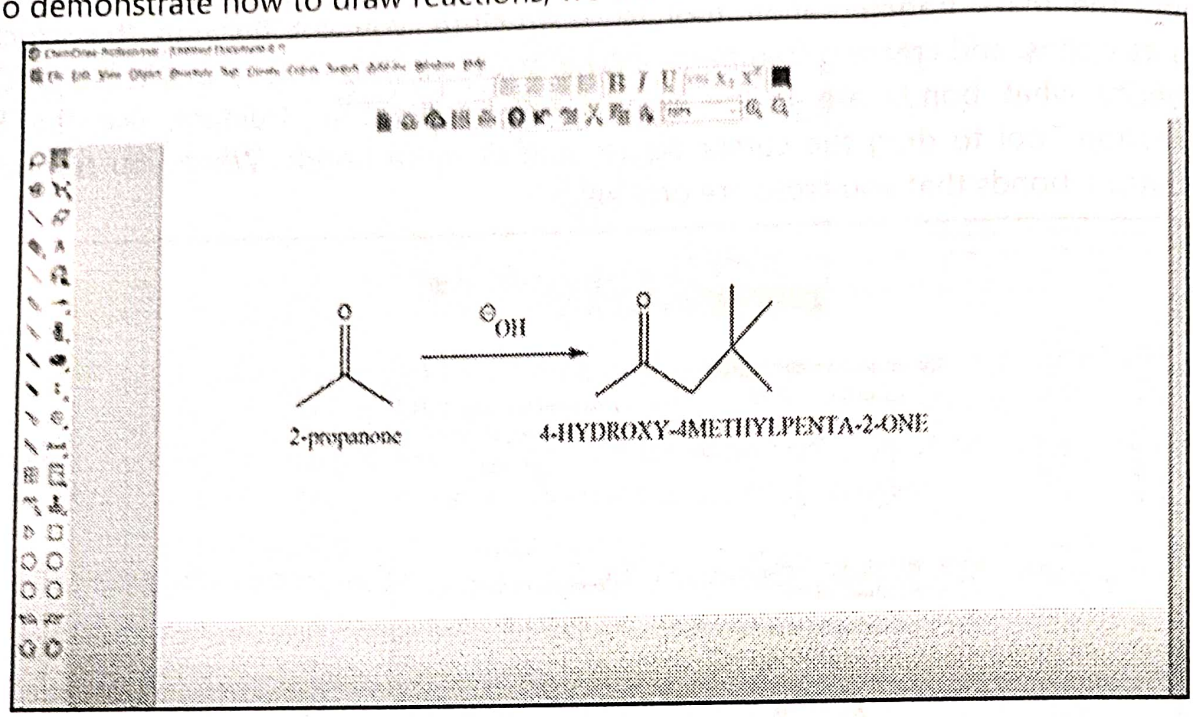
Mass fragmentation mimics the molecular fragmentation in a mass spectrometer. When you apply the mass fragmentation tool to a structure, you cut through the structure, severing its bonds, and creating fragment original structure. This is not a predictive tool; you must specify what bonds are to be broken. To fragment a structure, use the Mass Fragmentation Tool to drag the cursor across one or more bonds. When you release the mouse button, bonds that you cross are broken.





Drawing Reactions:

To demonstrate how to draw reactions, we will use this example:

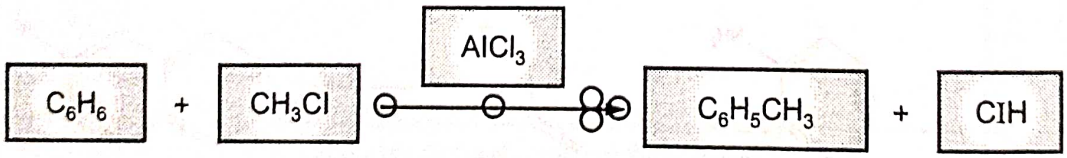


Stoichiometry Grid:

Use the Stoichiometry Grid to calculate stoichiometric data for a reaction. The grid fills in as you modify a reaction drawing, and all calculations are done automatically.

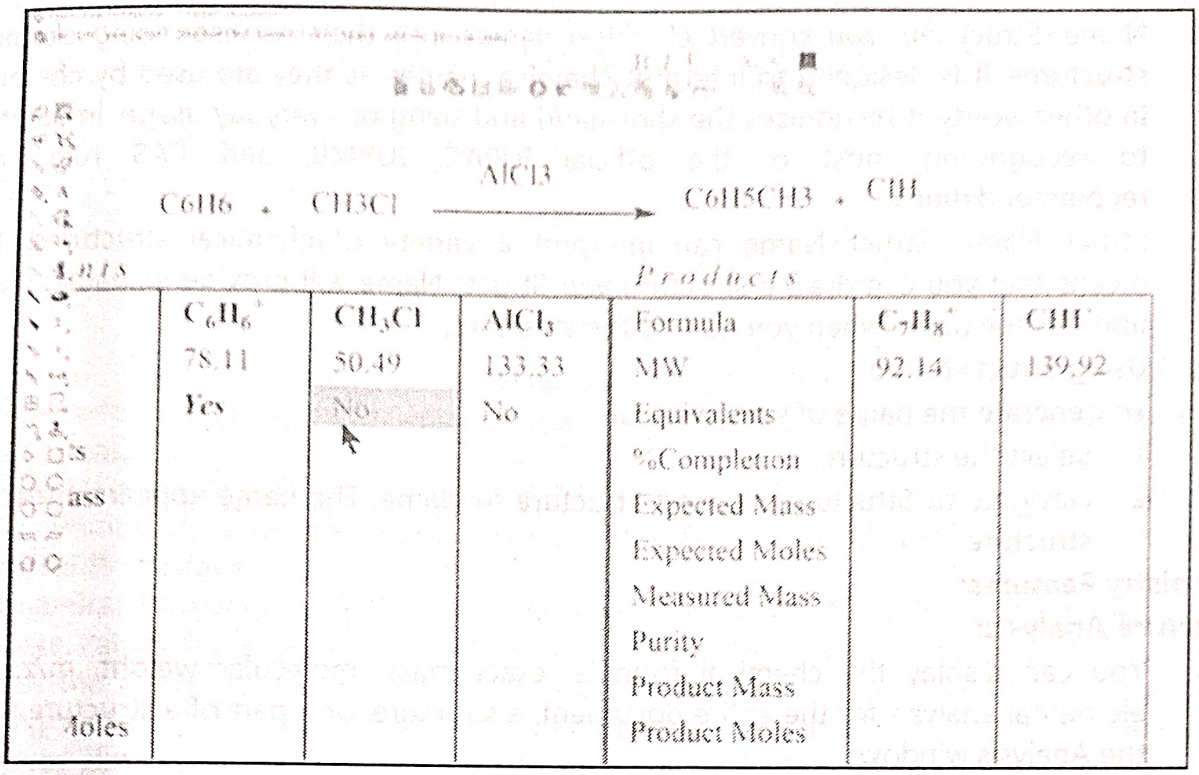
To create a stoichiometry grid:

1. Draw a reaction, or open a file containing a reaction.
2. Navigate to View>Show Reaction Interpretation. Turning on Show Reaction Interpretation ensures the reaction is properly interpreted by ChemDraw. When you click over the reaction, for example



- Reactants in red
- Products in magenta
- Anything above and below the reaction arrow in cyan and blue

3. Select the reaction and navigate to Structure>Analyze Stoichiometry. The grid, with several data fields filled with default values, appears under the reaction.



$$C_6H_6 + CH_3Cl \xrightarrow{AlCl_3} C_6H_5CH_3 + ClH$$

Reactants				Products		
	C_6H_6	CH_3Cl	$AlCl_3$	Formula	$C_7H_8^+$	ClH
	78.11	50.49	133.33	MW	92.14	139.92
	Yes	No	No	Equivalents		
				%Completion		
ass				Expected Mass		
				Expected Moles		
				Measured Mass		
				Purity		
				Product Mass		
Moles				Product Moles		

Reactants				Products		
Formula	C_6H_6	CH_3Cl	$AlCl_3$	Formula	$C_7H_8^+$	ClH
MW	78.11	50.48	133.33	MW	92.14	36.46
Limiting?	Yes	No	No	Equivalents		
Equivalents				%Completion		
Sample Mass		2.52g	6.67g	Expected Mass	4.61g	1.82g
%Weight				Expected Moles	50.00mmol	50.00mmol
Molarity				Measured Mass		
Density				Purity		
Volume				Product Mass		
Reactant Moles	50.00mmol	50.00mmol	50.00mmol	Product Moles		
Reactant Mass	3.91g	2.52g	6.67g	%Yield		

Struct-Name (Professional Level):

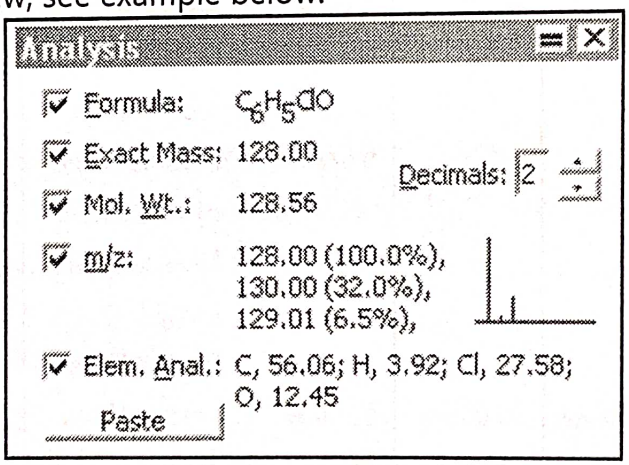
- ChemDraw includes two features for generating structures and chemical names—Name>Struct and Struct>Name.
- Collectively, these features are called Struct=Name.
- Struct>Name generates the names of chemical structures using the Cahn-Ingold-Prelog rules for stereochemistry.
- Using this option, you can generate the name of structures you have drawn.

- Name>Struct lets you convert chemical names into their corresponding chemical structures. It is designed to interpret chemical names as they are used by chemists. In other words, it recognizes the shorthand and slang of everyday usage, in addition to recognizing most of the official IUPAC, IUBMB, and CAS rules and recommendations.
- Struct>Name: Struct>Name can interpret a variety of chemical structures. This means that you can draw a structure and Struct>Name will provide its name. It also updates the name when you modify the structure.
- Using Struct>Name
- To generate the name of your structure:
  1. Select the structure.
  2. Navigate to Structure>Convert Structure to Name. The name appears under the structure.

Chemistry Features:

Structure Analysis:

- You can display the chemical formula, exact mass, molecular weight, m/z, and elemental analysis for the entire document, a structure, or a part of a structure using the Analysis window.
- Values for selected objects in the document window are shown. If no structure is selected in your document, values for the entire document are shown.
- You can have this window open as you draw in the document. It shows the current values as you draw, see example below:

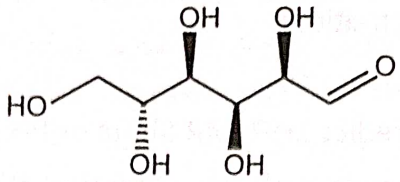


Elemental Analysis:

The percent by weight of each element in the structure.

To open the analysis window:

1. Select the entire structure, or part of the structure. If nothing is selected, the analysis window displays value for the entire structure.
2. Navigate to View>Show Analysis Window. The analysis windows displays values for the parts of the drawing you select, or the entire drawing if nothing is selected.
3. (Optional) Select Paste to add the analysis information to your drawing. The information appears as a caption that you can edit.



Glucose

Chemical Formula: $C_6H_{12}O_6$
Exact Mass: 180.06
Molecular Weight: 180.16
m/z: 180.06 (100.0%), 181.07 (6.9%), 182.07 (1.4%)
Elemental Analysis: C, 40.00; H, 6.71; O, 53.29

The information updates as you edit the structure. You can show or hide the information:

1. Using any tool, right-click the caption.
2. Point to Analysis, and select or deselect the item to show/hide.

Chemical Properties:

Chemical Property Prediction is a feature supported by ChemOffice. It enables you to calculate values for a wide range of methodologies; for example, topological descriptors such as the Weiner index and Balaban index, thermodynamic descriptors such as solubility, melting and boiling points, and partition coefficients such as CLogP, properties related to the three-dimensional shape and volume of a chemical such as the Connolly surface area and volume. In total, you can calculate more than 100 chemical properties for a given structure.

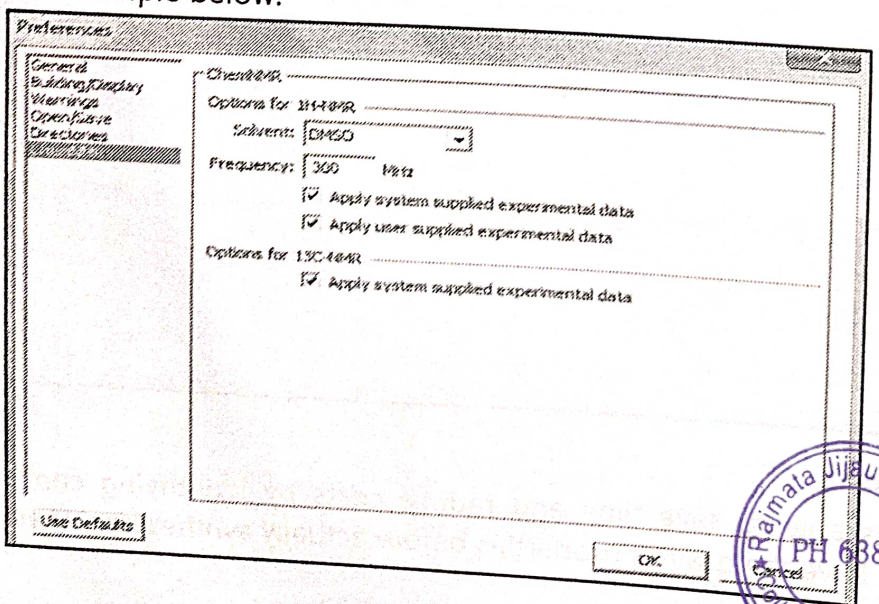
ChemNMR (Professional Level):

Using ChemNMR, you can estimate and display proton and Carbon-13 chemical shifts for a selected molecule.

As with ChemDraw, you can also use Chem3D to predict NMR. Chem3D includes several interfaces to computational chemistry packages which predict NMR. Some packages predict IR spectra and other spectra as well.

Setting Parameters Values in ChemNMR.

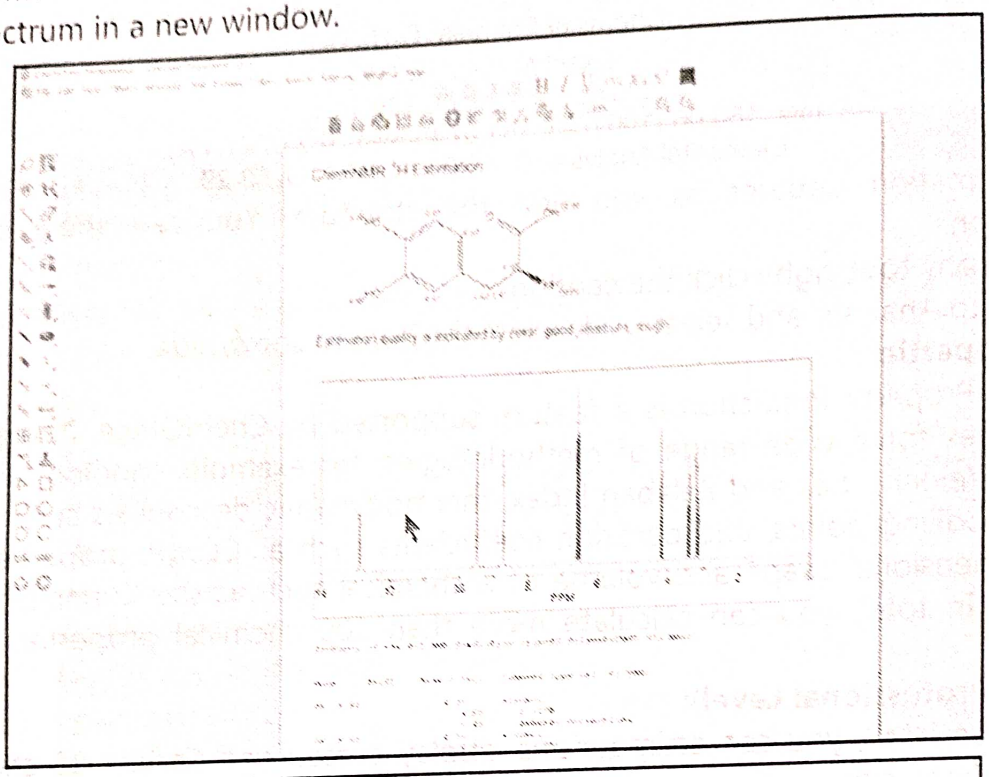
Use the ChemNMR option in Preferences dialog to set the parameter values in ChemNMR. See the example below:

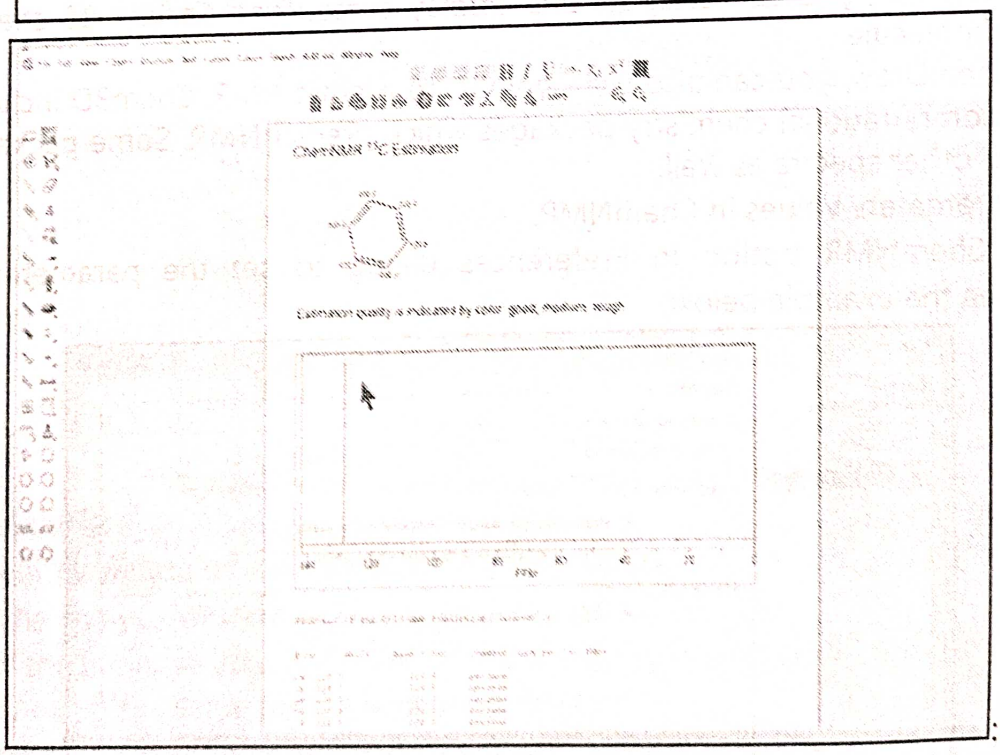


To view 1H or 13C NMR information:

1. Select a structure.
2. Navigate to Structure>Predict 1H-NMR Shifts or Predict 13C-NMR Shifts.

ChemNMR redraws the molecule with the estimated shifts and displays the information and line spectrum in a new window.





Special Features:

- Chemists able to save time and reduce costs by identifying compounds that are likely to have the desired properties before actually synthesizing them.

- Chemists can also save time and increase data accuracy using ChemDraw to generate spectra, construct correct IUPAC names, and calculate reaction stoichiometry.
- A powerful set of tools to handle substructural query types (such as R groups, atom/bond/ring types, and generic atoms) ensures that compounds are quickly and accurately located by searches, no matter how they are stored in commercial, public or in-house databases.
- Available for both Macintosh and Microsoft Windows.

Result:

- Drawing of chemical structure and reaction schemes by using ChemDraw was done.

VIVA VOCE

1. Enlist the online tools for the drawing of chemical structures and reactions.
2. What are the uses of computer programmes in pharmacy?
3. Explain the procedure for starting ACD/ChemSketch.
4. Explain any five buttons in Structure mode and draw its icons.
5. Explain any five buttons in draw mode and draw its icons.
6. Enlist the different molecular properties which can be calculated using ChemSketch.
7. Explain the toolbars in ChemSketch.
8. How you can draw the structure of Benzene by using ChemSketch?
9. Explain the application of ChemSketch.
10. How you will draw reaction mechanisms by using ChemSketch?
11. How you will install ChemDraw?
12. How you will draw structure using ChemDraw?
13. How you will colour the particular atom in a structure using ChemDraw?
14. Explain the different Drawing Settings in ChemDraw.
15. Explain BioDraw (Professional Level only).
16. How you will draw DNA Molecules using ChemDraw?
17. Explain the Mass Fragmentation.
18. Explain the ChemNMR (Professional Level).
19. Explain the different parameters oserved in Chemistry Features in ChemDraw.

2) You Tube Channels

RAJMATA JIJAU SHIKSHAN PRASARAK MANDAL's
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E-mail: rjspmcop123@gmail.com**Web**: www.rjspmpharmacy.com
Univ Id: PU/PN Pharm/286/2007 College Code:1081 DTE Code:6382

YouTube Channel of Faculty Members

Sr. No.	Name of Faculty	Channel Name	Topic	Link	No. Of Videos
1.	Dr. K.S. Jain	Kishor Jain	Emerging Trends in Drug Discovery	https://www.youtube.com/watch?v=oArNDnc7-X0	28
			IR Spectroscopy Part 5: Question Answers & Assignments	https://www.youtube.com/watch?v=C7AwTwqmy_Q	
			Infrared Spectroscopy Part-4: FTIR Theory , Instrumentation and Applications of IR.	https://www.youtube.com/watch?v=ImYf_aUpRYo	
			Infrared Spectroscopy-Part-3: Instrumentation & Handling	https://www.youtube.com/watch?v=CXdOPuP5zSc	
			New Drug Discovery Methods & Tools Part I	https://www.youtube.com/watch?v=a7yggDfIX4I	
			Polycyclic Aromatic Hydrocarbons (PAH) Part 4 Dr K S Jain	https://www.youtube.com/watch?v=PvRI6aU7RFk	
			PAH 3 Phenanthrene Dr K S Jain	https://www.youtube.com/watch?v=W19fxpc3My4	
			PAH 2 Anthracene Dr K S Jain	https://www.youtube.com/watch?v=dnMkRjqwy_0	
			PAH 1 : Napthalene Dr K S Jain	https://www.youtube.com/watch?v=2avsx_lBKtI	
			IR Part 2 The IR Spectrum	https://www.youtube.com/watch?v=fqdCQT8XHh0	
			InfraRed Spectroscopy: Part I Theoretical Aspects Dr K S Jain	https://www.youtube.com/watch?v=_cJpY4fVU_g	
			Benene and Aromaticity-Part 1 Struture & Orbital picture Dr K S Jain	https://www.youtube.com/watch?v=ppI8NKWgdYk	
			Benene and Aromaticity-Part 2 Resonance & Aromaticity Dr K S Jain	https://www.youtube.com/watch?v=Uf1F4P-J1fg	
			Benzene & Aromaticity Part 5- Selected derivatives & MCQs	https://www.youtube.com/watch?v=rz6wPUGTXYo	
			Benzene and Aomaticity - Part 4- Orientation of substitution in monosubstituted benzenes	https://www.youtube.com/watch?v=1O-7Emji-ps	
			Benzene and Aromaticity -Part 3- Electrophilic Aromatic Substitution by Dr K S Jain	https://www.youtube.com/watch?v=61HA6tAyi10	
			IUPAC Nomenclature of Organic Compounds by Dr K S Jain	https://www.youtube.com/watch?v=iQS3eBqdGCk	
			Classification of Organic Compounds- By Dr K.S.Jain	https://www.youtube.com/watch?v=Ig68qZnGt_8	
			Career Opportunities in Pharmay	https://www.youtube.com/watch?v=iicaCd9roVQ	
			Molecular modeling-CADD basics -Dr K S Jain	https://www.youtube.com/watch?v=A55vEBdXfeQ	

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Sr. No.	Name of Faculty	Channel Name	Topic	Link	No. Of Videos
			QSAR (Hansch's LFER) Explained Dr K S JAIN	https://www.youtube.com/watch?v=8v7ht0RwWrA	
			DRUG DESIGN I Earlier Approaches Dr K S Jain	https://www.youtube.com/watch?v=NXlYYjmJ8p8	
			Fibonnaci in Drug Design	https://www.youtube.com/watch?v=kywOT8-uXks	
			3D QSAR Dr K S Jain	https://www.youtube.com/watch?v=9wOUAzTXeZo	
			Dr K S Jain : Aldehydes & Ketones	https://www.youtube.com/watch?v=rK8-WLIgSEw	
			Dr K S Jain : ANTI-TUBERCULAR AGENTS	https://www.youtube.com/watch?v=LIAlvYlZoT4	
			Dr K S Jain- ANTIMALARIALS	https://www.youtube.com/watch?v=_6m5Yw78rQs	
2.	Dr. J.S.Dhumal	Jeevan Dhumal	Pharmacognosy of Jute (S Y B Pharmacy Sem IV	https://www.youtube.com/watch?v=vUMG2kXoX6g	31
			Pharmacognosy of Hemp (S Y B Pharmacy Sem IV)	https://www.youtube.com/watch?v=oS2eOswqwTc	
			Pharmacognosy of Cotton (S Y B Pharmacy as pePCI syllabus	https://www.youtube.com/watch?v=-jVqeZlDnnI	
			How to check B. Pharmacy provisional merit list ? Next step after checking the provisional list	https://www.youtube.com/watch?v=-vDouTnD2rE	
			AFTER SUBMISSION OF ONLINE APPLICATION VERY IMPORTANT STEP B Pharm First & Direct Second Year CAP 20	https://www.youtube.com/watch?v=LnIlG8Kot7w	
			filling and confirmation of option form for post HSC diploma courses	https://www.youtube.com/watch?v=33InL5YugXo	
			What is TFWS? Complete scheme details	outube.com/watch?v=GuII6KQ71Xg	
			B.Pharmacy/ Pharm D. Admission Activity schedule 2020-21	https://www.youtube.com/watch?v=AjjwrZOGTus	
			How to view Provisional merit list (Post HSC Diploma courses) & what to do in case of Grievance? D Pharm (Post HSC Diploma Courses) activity schedule 2020 21	https://www.youtube.com/watch?v=Jw0NFzF67Fg https://www.youtube.com/watch?v=sS60lEMZarM	
			B Pharmacy eligibility criteria from 2020-21	https://www.youtube.com/watch?v=owCq6Eajxqg	
			Best/Top 10 Pharmacy Colleges in Maharashtra	https://www.youtube.com/watch?v=QUFJAlkmBCA	
			World Pharmacist Day	https://www.youtube.com/watch?v=Xg1Zd-QpYPA	
			Top 10 Richest Indian Pharma Entrepreneurs,	https://www.youtube.com/watch?v=oKG2Q5sGCo4	
			Dr. K. Anji Reddy, Founder, Dr. Reddy's Laboratories, Pharma	https://www.youtube.com/watch?v=w54wKp1zRRg	

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Sr. No.	Name of Faculty	Channel Name	Topic	Link	No. Of Videos
			Success Story 1, Always Dream Big		
			D.Pharmacy	https://www.youtube.com/watch?v=pNlFdTGINsA	
			Teacher Day Wishes	https://www.youtube.com/watch?v=QUFJAIkmBCA	
			Post HSC diploma Courses Dates extended for document verification and online application till 10 sep	https://www.youtube.com/watch?v=BrwOu9slrrk	
			D Pharmacy Course Information (Duration, Course of study, Examination, training etc)	https://www.youtube.com/watch?v=eCKAXNskR2Q	
			Allotment List, Seat Acceptance, Auto freeze, Freeze, Betterment, CAP, Post HSC Diploma, 2020-21	https://www.youtube.com/watch?v=ySA0uIOFE2E	
			What is next after Declaration of Provisional merit list & Submission of Grievances? PostHSCDiploma	https://www.youtube.com/watch?v=aJpGk_MC9Js	
			Dates extended for Post HSC Diploma courses CAP 2020 (D. Pharm, HMCT & SCT)	https://www.youtube.com/watch?v=y3HxyJX-Qjk	
			Process for Option Form Filling and Confirmation for Post Hsc Diploma courses 2020	https://www.youtube.com/watch?v=GSz474-xetc	
			Fees Structure for Government and Unaided Private institutes, Post HSC Diploma, D. Pharm, SCT, HMCT	https://www.youtube.com/watch?v=aClcsEKeeDc	
			How to Search College fees online? (Pharmacy, Engineering, Medical and Agriculture)	https://www.youtube.com/watch?v=00-O5p_37Gk	
			How to send e-grievance after verification of documents (e-scrutiny) in Post HSC Diploma courses ?	https://www.youtube.com/watch?v=Zhe-zUnEmbE	
			Cut off list for D. Pharmacy. मला माझ्या आवडत्या कॉलेज मध्ये प्रवेश मिळेल का?	https://www.youtube.com/watch?v=OqQ_3cFuxPY	
			D Pharmacy, how merit list is prepared? Post HSC diploma courses Centralized admission process	https://www.youtube.com/watch?v=9UG2Jv6GPNg	

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E-mail: rjspmcop123@gmail.com**Web**: www.rjspmpharmacy.com
Univ Id: PU/PN Pharm/286/2007 College Code:1081 DTE Code:6382

Sr. No.	Name of Faculty	Channel Name	Topic	Link	No. Of Videos
			Post HSC Diploma courses, What is next step after document verification?	https://www.youtube.com/watch?v=mRn1xBlHFdA	
			Post HSC diploma courses(D.Pharmacy, SCT & HMCT) Document verification कसे, कुठे, कधी करावे ?	https://www.youtube.com/watch?v=LRfHjpZ89nY	
			POST HSC Diploma Courses CAP 2020 विद्यार्थ्यांनी ऑनलाईन अर्ज भरण्यापूर्वी या गोष्टींची तयारी करा	https://www.youtube.com/watch?v=AgPR3e2415A	
3.	Prof. A. N. phuge	Ashish Phuge	Synthetic Antibacterial Agents - Part 1	https://www.youtube.com/watch?v=cleHhFD1dS0	20
			Autocoids	https://www.youtube.com/watch?v=a8kTeD9lxZc	
			Fats and Oils	https://www.youtube.com/watch?v=ZWw59PS_gMw	
			Cycloalkanes	https://www.youtube.com/watch?v=Dk4hwkOHifQ	
			Macrolide Antibiotics	https://www.youtube.com/watch?v=RVYLigYHpRo	
			Polypeptide Antibiotic	https://www.youtube.com/watch?v=f-qBFprRIhk	
			Antitubercular Agents	https://www.youtube.com/watch?v=lqSO7CCY0X4	
			Aminoglycosides	https://www.youtube.com/watch?v=ncj8jLO1cTY	
			Antiameobic Drugs	https://www.youtube.com/watch?v=YSCfPys19Qk	
			Isoniazid	https://www.youtube.com/watch?v=CVvNKf8lPKE	
			Beta Lactamase Inhibitors	https://www.youtube.com/watch?v=VwolYDjP4O8	
			Antileprotic Drugs	https://www.youtube.com/watch?v=DroHV6bp-Ms	
			Tetracycline Antibiotics	https://www.youtube.com/watch?v=6LToiy5YRoU	
			Flucytosine	https://www.youtube.com/watch?v=mTBSXM-fW8Q	
			Azoles	https://www.youtube.com/watch?v=VxZXiYyFrIw	
			Polyene Antibiotic	https://www.youtube.com/watch?v=W_SSvEe8Fv4	
			Antiviral Agents	https://www.youtube.com/watch?v=VqO7Urd0LLY	
			Anthelmintics	https://www.youtube.com/watch?v=89trUvhIfxE	
			Chloramphenicol	https://www.youtube.com/watch?v=aPyEEuEFQwE	
			Antifungal Agents	https://www.youtube.com/watch?v=bYh3tRB_9lU	
4.	Prof A.K. Thikekar	Archana Thikekar	IR spectroscopy	https://www.youtube.com/watch?v=pmcOkQB59Iw	1

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

3) Computer Lab & Other ICT Facilities

RAJMATA JIJAU SHIKSHAN PRASARAK MANDAL's

COLLEGE OF PHARMACY

Approved by AICTE & PCI New Delhi, DTE, Govt. of Maharashtra &
Affiliated to Savitribai Phule Pune University
Gat No.101/102, A. Post-Dudulgaon, Post-Alandi, Tal-Haveli, Dist-Pune - 412 105
Tel: 020-27185566, **Fax:** 020-27185544, **E-mail:**rjspmcop123@gmail.com Web: www.rjspmpharmacy.com
UnivId:PU/PN Pharm/286/2007 College Code:1081 DTE Code:6382

E- Library

Computer/Language Laboratory

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

RAJMATA JIJAU SHIKSHAN PRASARAK MANDAL's

COLLEGE OF PHARMACY

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Affiliated to Savitribai Phule Pune University
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Tel: 020-27185566, **Fax:** 020-27185544, **E-mail:**rjspmcop123@gmail.com Web: www.rjspmpharmacy.com

UnivId:PU/PN Pharm/286/2007 College Code:1081 DTE Code:6382

ICT Facilities

LCD Projector in Classroom

Smart Board

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

CCTV Camera footage

CCTV Camera footage

Rajmata Jijau S.P.M. College Of Pharmacy PH 6382

RAJMATA JIJAU SHIKSHAN PRASARAK MANDAL's

COLLEGE OF PHARMACY

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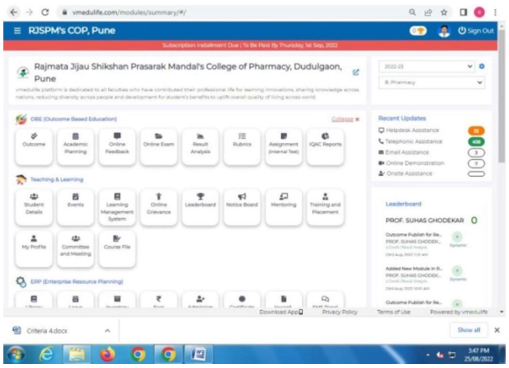
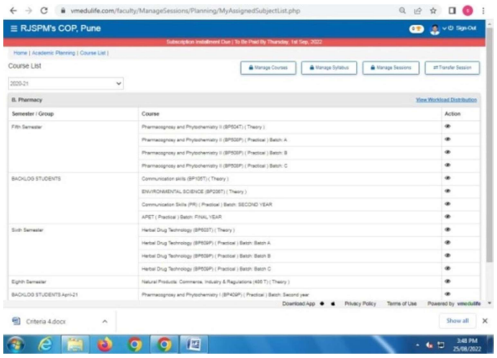
Tel: 020-27185566, **Fax:** 020-27185544, **E-mail:**rjspmcop123@gmail.com Web: www.rjspmpharmacy.com

UnivId:PU/PN Pharm/286/2007 College Code:1081 DTE Code:6382

vmedulife



Home Page



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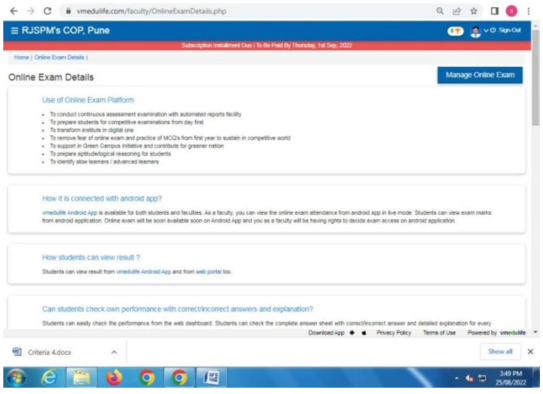
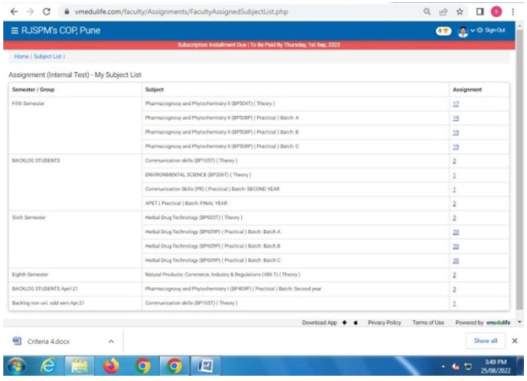
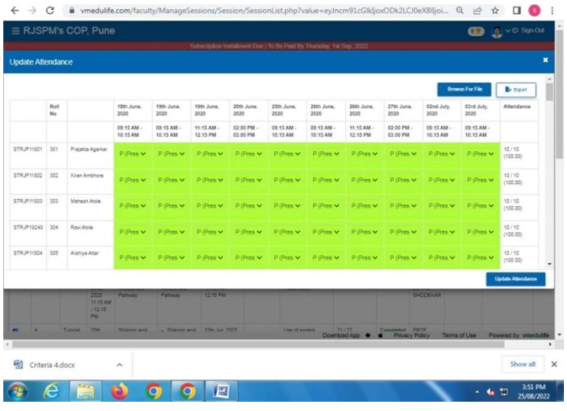


Manage Page



Assignment Page



Attendance Page

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

RAJMATA JIJAU SHIKSHAN PRASARAK MANDAL's

COLLEGE OF PHARMACY

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Tel: 020-27185566, **Fax:** 020-27185544, **E-mail:**rjspmcop123@gmail.com Web: www.rjspmpharmacy.com

UnivId:PU/PN Pharm/286/2007 College Code:1081 DTE Code:6382

Details of bandwidth of internet connection

Sr. No	Name of service	Name of service provider	Details of service
1	Bandwidth of internet connection	Pune teleinfra Pvt. Ltd.	Leaseline 100 Mbps 1:1

Cable network of internet in office

Cable network of internet in Computer Lab

Connection of cable to router in computer lab

Connection of cable to router in office

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

4) vmedulife

MEMORANDUM OF UNDERSTANDING

BETWEEN

VMEDULIFE PRIVATE LIMITED

AND

RAJMATA JIJAU SHIKSHAN PRASARAK MANDAL'S COLLEGE OF PHARMACY, PUNE

REGARDING IMPLEMENTATION OF VM EDULIFE PLATFORM FOR ALL STUDENTS AND FACULTIES TO ENHANCE LEARNING PROCESS BY USING ALL VARIOUS MODULES DEVELOPED BY vmedulife.

OBJECTIVE

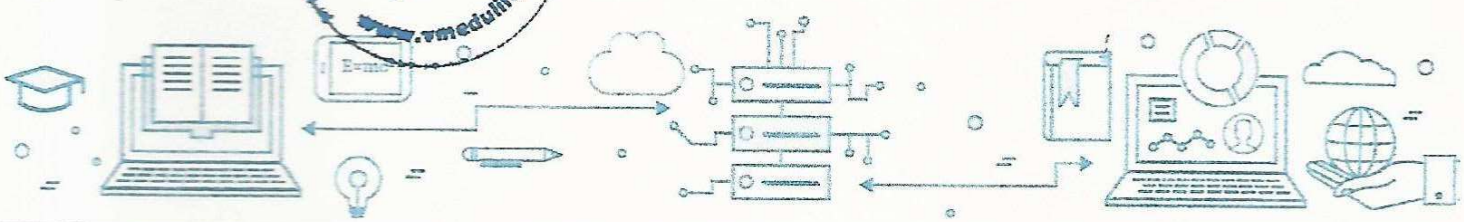
The objective of this MOU is to express the willingness of both parties to engage to promote the Competitiveness of VMEDULIFE Private Limited as well as its activities to develop and expand relationships with Rajmata Jijau Shikshan Prasarak Mandal's College of Pharmacy, Pune.

vmedulife Private Limited agrees to provide technical assistance to assist Rajmata Jijau Shikshan Prasarak Mandal's College of Pharmacy, Pune for overall development of Students and faculties to make them competent.

Rajmata Jijau Shikshan Prasarak Mandal's College of Pharmacy, Pune agrees to work with and coordinate with VMEDULIFE Private Limited in development of their initiatives to improve and expand support to the corporate interactions too for the student's overall improvement. They also agree to allow vmedulife to carry out monitoring and evaluation activities to assess the impact of these activities on participating.

vmedulife Pvt Ltd * vmedulife Software * Pune, India * www.vmedulife.com

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382



PARTNER ORGANIZATIONS

The Memorandum of Understanding is between:

1. vmedulife Private Limited
2. Rajmata Jijau Shikshan Prasarak Mandal's College of Pharmacy, Pune

ROLES AND RESPONSIBILITIES

The Partnership/Advisory group is accountable for:

- Removing obstacles to the partnership's successful delivery, adoption, and use
- Always maintaining the focus of the partnership on the agreed scope, outcomes and benefits
- Monitoring and managing the factors outside the partnership's control that are critical to its success.

1. The membership of the partnership/advisory group will commit to:

- Attending all scheduled partnership group/advisory group meetings/conference
- Champion the partnership within and outside of work areas
- Share all communications and information across all partnership/advisory group members.
- Make timely decisions and act to not hold up the implementation.
- Notifying members of the Partnership Group/Advisory Group, as soon as practical, if any matter arises which may be deemed to affect the development of the partnership.
- Attendance at all meetings and if necessary, nominate a proxy.

Members of the advisory group expect:

- That each member will be provided with complete, accurate and meaningful information in a timely manner.
- To be given reasonable time to make key decisions.
- To be alerted to potential risks and issues that could impact the implementation, as they arise.
- Open and honest discussions

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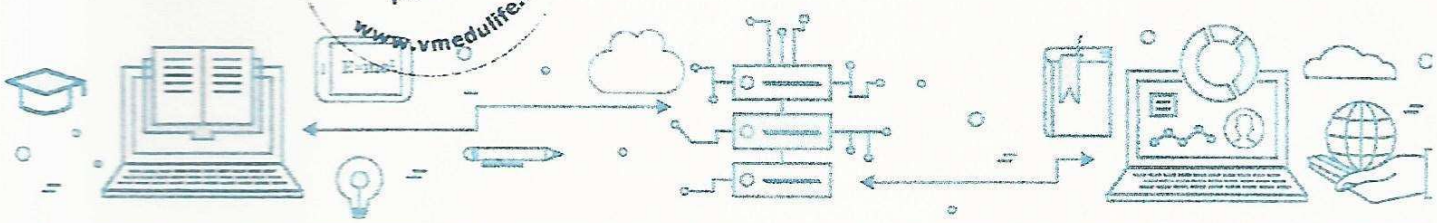
Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382



COMMUNICATION, INFORMATION SHARING AND CONSULTATION PROCESSES

- Timely communication between Institute Coordinator and vmedulife Executive for implementation
- Institute coordinator must cooperate vmedulife Executive for all the required information.
- vmedulife Executive always extend cooperation for successful implementation of all the planned & modernized activities for institute.

CONFLICT RESOLUTION

In case of any conflicts, both vmedulife Team and Institute concern authorities must discuss and come with solution without affecting student's routine academics and ongoing activities through vmedulife.

RESOURCES

The Institute needs to extend all the support for satisfactory implementation of all the modules and allow use the existing facilities for the activities related to Institute only.

PERIOD OF VALIDITY

This agreement shall be initially valid for 5 years from the date of signing the agreement and to be renewed subsequently by mutual consent of both the parties.

ARBITRATION

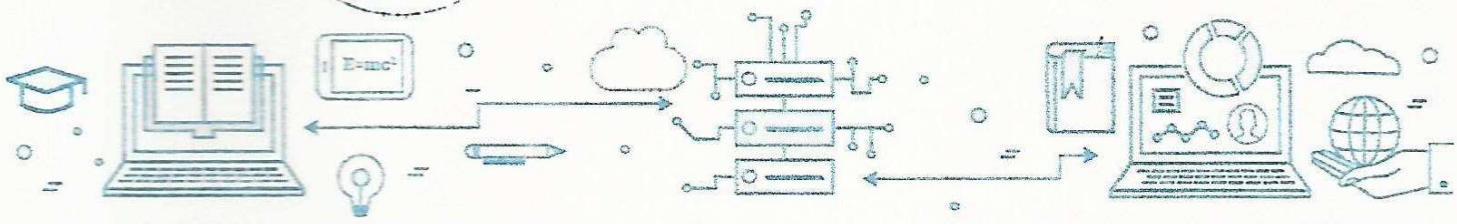
The parties to the Agreement shall settle any dispute arising regarding any aspect of this Agreement through mutual consultations and agreements.

AUTHORISATION

The signing of this MOU is not a formal undertaking. It implies that the signatories will strive to reach the objectives stated in the MOU, to the best of their ability.

vmedulife Pvt Ltd * vmedulife Software Pune, India www.vmedulife.com

Raimata Jijau S.P.M. College Of Pharmacy PH 6382



Partnering Organization:

Name: Rajmata Jijau Shikshan Prasarak Mandal's College of Pharmacy, Pune

Date: 27 July, 2021

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

Dr. R. G. Katedeshmukh
PRINCIPAL, Rajmata Jijau Shikshan Prasarak Mandal's College of Pharmacy, Pune

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

Partnering Organization:

Name: VMEDULIFE PRIVATE LIMITED, PUNE

Date 27 July 2021

Abhijeet Yeole,
Executive,
VMEDULIFE PRIVATE LIMITED

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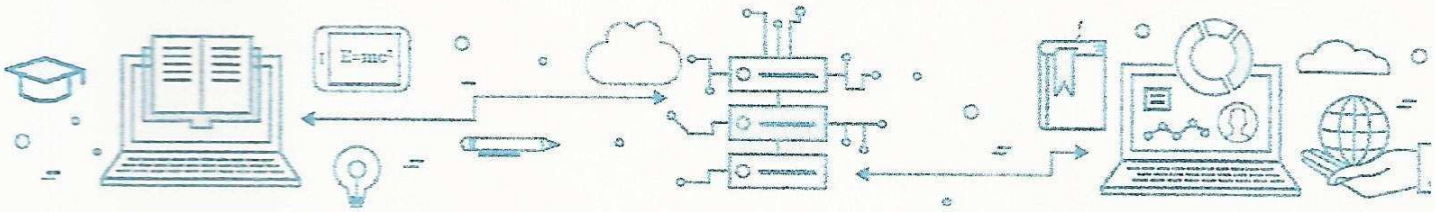
Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382



5.1) Invoices & Bills

Delnet

Proforma Tax Invoice

DELNET-Developing Library Network
JNU Campus,Nelson Mandela Road,Vasant Kunj
New Delhi-110070
GSTIN/UIN: **07AAAAD2288G1ZV**
Email: sangskaul2003@yahoo.co.in
Ph.No.+91-11-26742222,26741232
Fax. +91-11-26741122

Invoice No	Date
2023 / 60428	**25-May-2023**
Membership No. **IM-7000**	Mode Of Payment DD/Multicity-Cheque/NEFT
Reference No:	

R. J. S. P. M's College of Pharmacy
Dudulgaon
Pune
Pin: 412105
Maharashtra
GSTIN/UIN:

S. No	Particulars	GST RATE	Amount ₹
1	Annual Institutional Membership Fees (for the period 12.07.2023 to 11.07.2024)	18%	11,500.00
	IGST		2070.00
	Total.		₹ 13,570.00

Scan & Pay

DELNET Bank Details

A/C Holder Name: DELNET

Bank Name: Central Bank Of India

Branch:Khan Market,New Delhi-110003

A/c No:- 1065410992 (Saving Account)

IFSC CODE: CBIN0280310

Amount Chargeable (in words)

₹ THIRTEEN THOUSAND FIVE HUNDRED SEVENTY ONLY

E. & O.E

SAC CODE:- 998431

Taxable Value	Integrated Tax	
	Rate	Amount
11500.00	18%	2070.00

Tax Amount (in words) ₹ TWO THOUSAND SEVENTY ONLY

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

For Bank Transfer

Kindly remit the amount through NEFT/RTGS only.DO NOT DEPOSIT THE CASH DIRECTLY TO DELNET BANK A/C.

Remarks:

DELNET's PAN : **AAAAD2288G**

for DELNET- Developing Library Network

Authorised Signatory.

DD/CHEQUE SHOULD BE IN FAVOUR OF "DELNET". The DD should be made payable at "New Delhi" bank branch.

"This is a Computer generated Invoice - The signatures are not required."

No.: **Receipt No./75801/2023-24** Dated **12-Jul-23**

DELNET- Developing Library Network
Jawaharlal Nehru University Campus
Nelson Mandela Road, Vasant Kunj
New Delhi-110070
State Name : Delhi, Code : 07

Receipt

Received with thanks from : **RJSPM'S COLLEGE OF PHARMACY**
DUDULGAON, PUNE-412105
[DELNET MEM NO. IM-7000]

The sum of : **Indian Rupees Thirteen Thousand Five Hundred Seventy Only**

By : RJSPM'S COLLEGE OF PHARMACY; The Cosmos Co-Operative Bank Ltd (India)
Inter Bank Transfer 000029192354 12-Jul-23 **13,570.00**

Remarks : **AMOUNT RECEIVED TOWARDS ANNUAL INSTITUTIONAL MEMBERSHIP FEES FOR THE PERIOD 12.07.2023 TO 11.07.2024**

**₹ 13,570.00/-

Auth ory

**Subject to Realisation*

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

Proforma Tax Invoice

DELNET-Developing Library Network
JNU Campus,Nelson Mandela Road,Vasant Kunj
New Delhi-110070
GSTIN/UIN: **07AAAAD2288G1ZV**
Email: sangskaul2003@yahoo.co.in
Ph.No.+91-11-26742222,26741232
Fax. +91-11-26741122

Invoice No	Date
2022 / 53101	**26-May-2022**
Membership No. **IM-7000**	Mode Of Payment DD/Multicity-Cheque/NEFT
Reference No:	

R. J. S. P. M's College of Pharmacy
Dudulgaon
Pune
Pin: 412105
Maharashtra
GSTIN/UIN:

S. No	Particulars	GST RATE	Amount ₹
1	Annual Institutional Membership Fees (for the period 12.07.2022 to 11.07.2023)	18%	11,500.00
	IGST		2,070.00
	Total.		₹ 13,570.00

Scan & Pay

DELNET Bank Details

A/C Holder Name: DELNET

Bank Name: Central Bank Of India

Branch:Khan Market,New Delhi-110003

A/c No:- 1065410992 (Saving Account)

IFSC CODE: CBIN0280310

Amount Chargeable (in words)

₹ THIRTEEN THOUSAND FIVE HUNDRED SEVENTY ONLY

E. & O.E

SAC CODE:- 998431

Taxable Value	Integrated Tax	
	Rate	Amount
11,500.00	18%	2,070.00

Tax Amount (in words) ₹ TWO THOUSAND SEVENTY ONLY

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

For Bank Transfer

Kindly remit the amount through NEFT/RTGS only.DO NOT DEPOSIT THE CASH DIRECTLY TO DELNET BANK A/C.

Remarks:

DELNET's PAN : **AAAAD2288G**

for DELNET- Developing Library Network

Authorised Signatory.

DD/CHEQUE SHOULD BE IN FAVOUR OF "DELNET". The DD should be made payable at "New Delhi" bank branch.

"This is a Computer generated Invoice - The signatures are not required."

No.: **Receipt No./70442/2022-23** Dated **30-Jun-22**

DELNET- Developing Library Network
Jawaharlal Nehru University Campus
Nelson Mandela Road, Vasant Kunj
New Delhi-110070
State Name : Delhi, Code : 07

Receipt

Received with thanks from : **RJSPM'S COLLEGE OF PHARMACY**
DUDULGAON, PUNE-412105
[DELNET MEM NO. IM-7000]

The sum of : **Indian Rupees Thirteen Thousand Five Hundred Seventy Only**

By : RJSPM'S COLLEGE OF PHARMACY
Inter Bank Transfer 000021222589 29-Jun-22 **13,570.00**

Remarks : **AMOUNT RECEIVED TOWARDS ANNUAL INSTITUTIONAL MEMBERSHIP FEES FOR THE PERIOD 12.07.2022 TO 11.07.2023**

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

Authority

****₹ 13,570.00/-**

***Subject to Realisation*

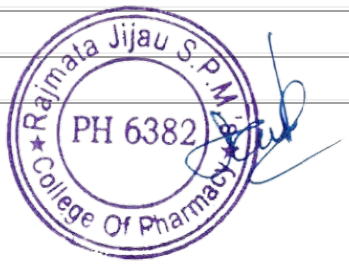
DELNET

Access E-Journals

S.No.	Pharmacy
1.	Acta Pharmaceutica
2.	Acta Pharmaceutica Sinica B
3.	Adolescent Health, Medicine and Therapeutics
4.	Advanced Health Care Technologies
5.	Advances in Pharmacoeidemiology
6.	Advances in Pharmacoepidemiology and Drug Safety
7.	Advances in Pharmacological Sciences
8.	African Journal of Emergency Medicine
9.	African Journal of Pharmacy and Pharmacology
10.	African Journal of Traditional Complementary and Alternative Medicine
11.	Alcoholism and Drug Addiction
12.	Alexandria Journal of Medicine
13.	Alimentary Pharmacology & Therapeutics
14.	Alternative & Integrative Medicine
15.	American Journal of Pharmaceutical Education
16.	Annals of Medicine & Surgery
17.	Archives of Medicine
18.	Archives of Pharmacy Practice
19.	Asian Journal of Pharmaceutical and Clinical Research
20.	Asian Journal of Pharmaceutical and Health Sciences
21.	Asian Journal of Pharmaceutical Sciences
22.	Asian Journal of Pharmaceutics
23.	Asian Pacific Journal of Tropical Medicine
24.	Austin Journal of Pharmacology and Therapeutics
25.	B.M.C infectious Diseases
26.	Biochemistry & Pharmacology Open Access
27.	Blood and Lymphatic Cancer: Targets and Therapy
28.	Brazilian Journal of Pharmaceutical Sciences
29.	Breast Cancer: Targets and Therapy
30.	British Journal of Pharmacology and Toxicology

31.	Bulletin of Faculty of Pharmacy, Cairo University
32.	Cardiovascular Pharmacology
33.	Chronic Diseases and Translational Medicine
34.	Chronic Obstructive Pulmonary Disease: Journal of the COPD Foundation
35.	Chronicles of Pharmaceutical Science
36.	ChronoPhysiology and Therapy
37.	Clinical Pharmacology: Advances and Applications
38.	ClinicoEconomics
39.	Current issues on Pharmacy and Medical Scinces
40.	DARU : Journal of Pharmaceutical Sciences
41.	Der Pharma Chemica
42.	Der Pharmacia Lettre
43.	Der Pharmacia Sinica
44.	Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy
45.	Diagnostic and Therapeutics Endoscopy
46.	Drug:Real world outcomes
47.	Drug Design, Development and Therapy
48.	Drug Designing
49.	Drug Development and Therapeutics
50.	Drug, Healthcare and Patient Safety
51.	EBiomedicine
52.	Egyptian Pharmaceutical Journal
53.	Emergency Medicine
54.	European Journal of Biomedical and Pharmaceutical Sciences
55.	European Journal of Case reports in internal medicine
56.	European Pharmaceutical Journal
57.	European Respiratory Journal
58.	Future Journal of Pharmaceutical Sciences
59.	Gastrointestinal Cancer: Targets and Therapy
60.	General Medicine
61.	Global Journal of Pharmacy & Pharmaceutical Science
62.	Hepatic Medicine : Evidence and Research
63.	Herbal Medicine
64.	HIV/AIDS-Research and Palliative Care
65.	Immunity, Inflammation and Disease
66.	Immunome Research

67.	ImmunoTargets and Therapy
68.	Indian Journal of Neonatal Medicine and Research
69.	Indian Journal of Pharmaceutical Sciences
70.	Indian Journal of Pharmacology
71.	Indian Journal of Pharmacy Practice
72.	Indian Journal of Research in Homeopathy
73.	Indo Global Journal of Pharmaceutical Sciences
74.	Infection and Drug Resistance
75.	Innovations in Pharmacy
76.	Infectious Diseases and Therapy
77.	Integrated Pharmacy Research and Practice
78.	Integrative Medicine Research
79.	Internal Journal of Clinical Pharmacy
80.	Internal Medicine
81.	International Journal of Pharmaceutical and Phytopharmacological Research
82.	International Journal of Applied Research in Natural Products
83.	International Journal of Basic & Clinical Pharmacology
84.	International Journal of Chemical and Pharmaceutical Sciences
85.	International Journal of Drug Development & Research
86.	International Journal of Drug Discovery
87.	International Journal of Green Pharmacy
88.	International Journal of Pharma Sciences and Research
89.	International Journal of Pharmacological Research
90.	International Journal of Pharmaceutical Investigation
91.	International Journal of Pharmaceutical Sciences & Research
92.	International Journal of Pharmaceutical Sciences : Review and Research
93.	International Journal of Pharmacology and Clinical Sciences
94.	International Journal of Pharmacy and Biological Sciences
95.	International Journal of Pharmacy and Integrated Life Sciences
96.	International Journal of Pharmacy and Pharmaceutical Sciences
97.	International Journal of Pharmacy and Technology
98.	International Journal of Physical Medicine & Rehabilitation
99.	International Journal of Research in Ayurveda and Pharmacy
100.	International Journal on General Medicine
101.	International Research Journal of Pharmacy
102.	Iranian Journal of Pharmaceutical Research



103.	Journal of Advanced Pharmaceutical Research
104.	Journal of AIDS and HIV Infections
105.	Journal of Anaesthesiology Clinical Pharmacology
106.	Journal of Anesthesia and Patient Care
107.	Journal of Applied Pharmaceutical Science
108.	Journal of Advanced Pharmaceutical Research
109.	Journal of Asthma and Allergy
110.	Journal of Basic & Clinical Pharmacy
111.	Journal of Blood Disorders & Transfusion
112.	Journal of Blood Medicine
113.	Journal of Cancer Research in Therapeutics
114.	Journal of Cancer Science & Therapy
115.	Journal of Cancer Science and Clinical Oncology
116.	Journal of Cancer Therapeutics & Research
117.	Journal of Carcinogenesis & Mutagenesis
118.	Journal of Dentistry and Oral Care Medicine
119.	Journal of Developing Drugs
120.	Journal of Drug Delivery
121.	Journal of Drug Metabolism & Toxicology
122.	Journal of Ethnopharmacology
123.	Journal of Experimental Pharmacology
124.	Journal of Food and Drug Analysis
125.	ournal of Forensic Medicine
126.	Journal of Healthcare Leadership
127.	Journal of Immunology & Infectious Disease
128.	Journal of Korean Society for Clinical Pharmacology and Therapeutics
129.	Journal of Neurodegenerative Diseases
130.	Journal of Nuclear Medicine & Radiation Therapy
131.	Journal of Nutrition and Health Sciences
132.	Journal of Obesity and Overweight
133.	Journal of Oncology Medicine & Practice
134.	Journal of Ophthalmology
135.	Journal of Pain Management & Medicine
136.	Journal of Pharma Research
137.	Journal of Pharmaceutical Analysis
138.	Journal of Pharmaceutical Care

139.	Journal of Pharmaceutical Care & Health Systems
140.	Journal of Pharmaceutical Negative Results
141.	Journal of Pharmaceutical Science and Bio scientific Research
142.	Journal of Pharmaceutics and Drug Development
143.	Journal of Pharmacognosy & Natural Products
144.	Journal of Pharmacological Sciences
145.	Journal of Pharmacology & Clinical Toxicology
146.	Journal of Pharmacology & Pharmacotherapeutics
147.	Journal of Pharmacovigilance
148.	Journal of Pharmacy and Bioallied Sciences
149.	Journal of Pharmacy and Pharmaceutical Sciences
150.	Journal of Pharmacy Practice and Community Medicine
151.	Journal of Pharmacy Teaching
152.	Journal of Preventive Medicine
153.	Journal of Pulmonary & Respiratory Medicine
154.	Journal of Research in Pharmacy Practice
155.	Journal of Sports Medicine & Doping Studies
156.	Journal of Surgery and Operative Care
157.	Journal of Tropical Diseases & Public Health
158.	Journal of Vascular Medicine & Surgery
159.	Journal of Vector Borne Diseases
160.	Journal of Young Pharmacists
161.	Marine Drugs
162.	Metal-Based Drugs
163.	National Journal of Physiology, Pharmacy and Pharmacology
164.	Occupational Medicine & Health Affairs
165.	Drug Delivery Journal
166.	Orphan Drugs: Research and Reviews
167.	Pediatric Health, Medicine and Therapeutics
168.	Pharmaceuticals
169.	Pharmaceutics
170.	Pharmacie Globale : International Journal of Comprehensive Pharmacy
171.	Pharmacogenomics and Personalized Medicine
172.	Pharmacology & Therapeutics
173.	Pharmacology and Pharmacy
174.	Pharmacy Practice

175.	Pharmacy-MDPI
176.	Research & Reviews: Journal of Hospital and Clinical Pharmacy
177.	Research Journal of Pharmacognosy
178.	Robotic Surgery: Research and Reviews
179.	SOJ Microbiology & Infectious Diseases
180.	Southern Med Review
181.	Stamford Journal of Pharmaceutical Sciences
182.	The Open Biomarkers Journal (Bentham)
183.	The Open Biotechnology Journal (Bentham)
184.	The Open Infectious Diseases Journal
185.	The Open Medicinal Chemistry Journal (Bentham)
186.	The Open Nanoscience Journal (Bentham)
187.	The Open Natural Products Journal (Bentham)
188.	The Open Nitric Oxide Journal (Bentham)
189.	The Open Nutraceuticals Journal (Bentham)
190.	The Open Pain Journal (Bentham)
191.	The Open Pharmacoeconomics & Health Economics Journal (Bentham)
192.	The Open proteomics journal (Bentham)
193.	Toxicology Journal
194.	Therapeutics and Clinical Risk Management
195.	Toxicology
196.	Translational Biomedicine
197.	Tropical Journal of Pharmaceutical Research
198.	Universal Journal of Pharmacy
199.	Veterinary Medicine: Research and Reviews
200.	World Journal of Gastrointestinal Pharmacology and Therapeutics

Rajmata Jijau S.P.M.'s College Of Pharmacy ★ PH 6382 ★

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

5.2) Invoices & Bills

Ex-Pharm Software

Bureau for Health and Education Status Upliftment

(Constitutionaly Entitled as Health-Education, Bureau)

55/20, Rajat Path, Mansarovar, Jaipur
Rajasthan, Pin : 302020
Contact : Basic : 0141-2783681, Mob. : 8690723563
Mail : support@heb-nic.in, serviceheb@gmail.com
Website : www.heb-nic.in

Date:27/02/2020
Ref. No: HEB/EPS/2020/7149

To
The Principal,
RJSPM'S college of Pharmacy
Gat No. 101-102, Dudulgaon, Moshi-Alandi Road,
Pune, Maharashtra - 412105

Subject: Confirmation of subscription

Dear Sir,

In response to subscription request and subscription amount received from you, we are here by sending you the dedicated password of Experimental Pharmacology Series (Ex-Pharm Series) Software and the invoice (attached with letter).

We hereby confirm your subscription of Experimental Pharmacology Series (Ex-Pharm Series) Software from Feb-20 to Jan-23 (3 Years).

To view Experimental Pharmacology Series (Ex-Pharm Series) Software, please enter the password in below mentioned link

Link: http://heb-nic.in/Ex-Pharm/login.php
User ID: rjspm
Password: rjspm123

You will be receiving further communications time to time also.

Thanking you

Director
Digital Service Division

Enclosed:
- **The Invoice**
- **User Manual**

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

HEALTH EDUCATION BUREAU
(Bringing Innovations in Health & Learning)
Address: 55/20, Rajat Path, Mansarovar,
Jaipur, Rajasthan, Pin:302020
Contact:0141-2783681, 9636348191
Mail: serviceheb@gmail.com, support@heb-nic.in
Website: www.heb-nic.in, www.journalofhospitalpharmacy.in

INVOICE

PAN NO: AGAPA7570J | **GST Reg. No: 08AJAPA7570J1Z8** | **INVOICE NO: 5945/2020** | **DATE: 27/02/2020**

The Principal, RJSPM'S college of Pharmacy Gat No. 101-102, Dudulgaon, Moshi-Alandi Road, Pune, Maharashtra - 412105	FORM: A	PRODUCT CODE: HP-JEN	SUB PRODUCT CODE: ONLINE	BOOKING EXECUTIVE CODE: MHMAK
	CLIENT LOCATION: Pune			

SR. NO.	DESCRIPTION	SUBSCRIPTION		AMOUNT IN RUPEES	GST RATE	GST		NET PRICE	CATEGORY
		FROM	TO			SGST	CGST		
1	Experimental Pharmacology Series (Ex-Pharm Series)	FEB-20	JAN-23	25040	18%	2253.5	2253.5	29547	INSTITUTION

AMOUNT IN WORDS: Twenty Nine Thousand Five Hundred Forty Seven Rupees Only

PAYMENT RECEIVED					BALANCE TO COLLECT				
MODE	AMOUNT	TRANS. NO.	DATE	BANK	MODE	AMOUNT	TRANS. NO.	DATE	BANK
CASH					CASH				
D.D./CHEQUE					D.D./CHEQUE				
NEFT/RTGS					NEFT/RTGS				
ANY OTHER	29547	-	-	-	ANY OTHER				
PAYMENT RECEIVED: Twenty Nine Thousand Five Hundred Forty Seven Rupees Only					BALANCE TO COLLECT:				

FOR HEALTH EDUCATION BUREAU

Bureau For Health Education Status Uniformity

AUTHORISED SIGNATORY
DATE: 27/02/2020

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

Rajmata Jijau S.P.M.'s College Of Pharmacy
PH 6382

RAJMATA JIJAU SHIKSHAN PRASARAK MANDAL's
COLLEGE OF PHARMACY
Approved by AICTE & PCI New Delhi, DTE, Govt. of Maharashtra &
Affiliated to University of Pune
Gat No.101/102, A. Post-Dudulgaon, Post-Alandi, Tal-Haveli, Dist-Pune - 412 105
E-mail: rjspmcop123@gmail.comWeb: www.rjspmpharmacy.com
Univ Id: PU/PN Pharm/286/2007 College Code:1081 DTE Code:6382

RJSPM/CoP/2022-23/148

Date: 17/01/2023

To,
The Secretary,
RJSPM's College of Pharmacy,
Dudulgaon –Pune.

Subject: Gentle reminder regarding "Renewal of Ex-Pharm software subscription"

Respected sir,

With respect to above mentioned subject, we are using "Ex-Pharm software" for conducting Pharmacology practicals for B pharmacy students as per PCI syllabus from last three years. Our previous subscription for the Ex-Pharm software was from Feb- 2020 to Jan- 2023 (Three years) and it is expiring in January 2023. **(Enclosure-1).**

This software subscription is mandatory as per PCI syllabus and it is one of the strongest point for NAAC. (Criteria 2, Criteria 4 and criteria 7). For three years subscription of this software it costs around 29,547 RS. (Including GST). **(Enclosure-2).**

So, I request you to please treat this urgent and permit for the process of renewal of Ex-Pharm software as soon as possible as this subscription is expiring on 31 January 2023.

Sincerely,

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

Enclosure-1: Previous Ex-Pharm software subscription.

Enclosure-2: Subscription form with quotation.

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

Bureau for Health and Education Status Upliftment

(Constitutionaly Entitled as Health-Education, Bureau)
55/20, Rajat Path, Mansarovar, Jaipur
Rajasthan, Pin : 302020
Contact : Basic : 0141-2783681, Mob. : 8690723563
Mail : support@heb-nic.in, serviceheb@gmail.com
Website : www.heb-nic.in

Date:27/02/2020
Ref. No: HEB/EPS/2020/7149

To
The Principal,
RJSPM'S college of Pharmacy
Gat No. 101-102, Dudulgaon, Moshi-Alandi Road,
Pune, Maharashtra - 412105

Subject: Confirmation of subscription

Dear Sir,

In response to subscription request and subscription amount received from you, we are here by sending you the dedicated password of Experimental Pharmacology Series (Ex-Pharm Series) Software and the invoice (attached with letter).

We hereby confirm your subscription of Experimental Pharmacology Series (Ex-Pharm Series) Software from Feb-20 to Jan-23 (3 Years).

To view Experimental Pharmacology Series (Ex-Pharm Series) Software, please enter the password in below mentioned link

Link: http://heb-nic.in/Ex-Pharm/login.php
User ID: rjspm
Password: rjspm123

You will be receiving further communications time to time also.

Thanking you

Director
Digital Service Division

Enclosed:
- The Invoice
- User Manual

Rajmata Jijau S.P.M. College Of Pharmacy PH 6382

Rajmata Jijau S.P.M. College Of Pharmacy PH 6382

HEALTH EDUCATION BUREAU
(Bringing Innovations in Health & Learning)
Address: 55/20, Rajat Path, Mansarovar,
Jaipur, Rajasthan, Pin:302020
Contact:0141-2783681, 9636348191
Mail: serviceheb@gmail.com, support@heb-nic.in
Website: www.heb-nic.in, www.journalofhospitalpharmacy.in

INVOICE

PAN NO: AGAPA7570J | GST Reg. No: 08AJAPA7570J1Z8 | INVOICE NO: 5945/2020 | DATE: 27/02/2020

The Principal,
RJSPM'S college of Pharmacy
Gat No. 101-102, Dudulgaon, Moshi-Alandi Road,
Pune, Maharashtra - 412105

FORM:	PRODUCT CODE:	SUB PRODUCT CODE:	BOOKING EXECUTIVE CODE:
A	HP-JEN	ONLINE	MHMAK

CLIENT LOCATION: Pune

SR. NO.	DESCRIPTION	SUBSCRIPTION FROM	SUBSCRIPTION TO	AMOUNT IN RUPEES	GST RATE	GST SGST	GST CGST	NET PRICE	CATEGORY
1	Experimental Pharmacology Series (Ex-Pharm Series)	FEB-20	JAN-23	25040	18%	2253.5	2253.5	29547	INSTITUTION

AMOUNT IN WORDS: Twenty Nine Thousand Five Hundred Forty Seven Rupees Only

PAYMENT RECEIVED					BALANCE TO COLLECT				
MODE	AMOUNT	TRANS. NO.	DATE	BANK	MODE	AMOUNT	TRANS. NO.	DATE	BANK
CASH					CASH				
D.D./CHEQUE					D.D./CHEQUE				
NEFT/RTGS					NEFT/RTGS				
ANY OTHER	29547	-	-	-	ANY OTHER				

PAYMENT RECEIVED: Twenty Nine Thousand Five Hundred Forty Seven Rupees Only

BALANCE TO COLLECT:

FOR HEALTH EDUCATION BUREAU

AUTHORISED SIGNATORY
DATE: 27/02/2020

Rajmata Jijau S.P.M. College Of Pharmacy PH 6382

Rajmata Jijau S.P.M. College Of Pharmacy PH 6382

BUREAU FOR HEALTH & EDUCATION
STATUS UPLIFEMENT
(Constitutionally Entitled As- Health Education Bureau)
Address: 55/20, Rajat Path, Mansarovar,
Jaipur, Rajasthan, Pin:302020

Contact:0141-2783681, 9636348191
Mail: serviceheb@gmail.com, support@heb-nic.in
Website: www.heb-nic.in

Proforma Invoice/Quotation

Date: 05/01/2023
Proforma Invoice/Quotation No.: 2301054/2023
GST Reg. No: 08AJAPA7570J1Z8
Category: Institution

Billing Address	Office Address
RJSPM'S college of Pharmacy Gat No. 101-102, Dudulgaon, Moshi-Alandi Road, Pune, Maharashtra - 412105	RJSPM'S college of Pharmacy Gat No. 101-102, Dudulgaon, Moshi-Alandi Road, Pune, Maharashtra - 412105

Quantity	Description (Subscription)	Duration	Unit price	GST	Total
1.	Ex Pharm (Experimental Pharmacology) Series Software	3 Years	25,040 ₹ (Comprehensive Pack)	4,507 ₹	29,547 ₹

All Demand Draft & Cheque should be in favor of "Health Education Bureau" Payable at Jaipur, Rajasthan

Final invoice will be issued at the completion of payment.

Sub Total	29,547 ₹
Remarks	-
Total Due	29,547 ₹

Remit payment in INR to Following Account Details:
Account Name: Health Education Bureau,
Bank: UCO Bank
Branch: Mansarovar, Jaipur, Rajasthan
Account No.20960210003121,
IFSC Code: UCBA0002096
Address: 55/20, Rajat Path, Mansarovar, Jaipur, Rajasthan (India), PIN-302020

*The subscription price covers delivery charges also.

Rajmata Jijau S.P.M. College Of Pharmacy PH 6382

5.3) Invoices & Bills

Words Worth Software

BILLED TO:

RAJMATA JIJAU SHIKSHAN PRASARAK MANDAL'S
COLLEGE OF PHARMACY
GAT NO. 101/102 A, AT: DUDALGAON,
POST: ALANDI, TALUKA: HAVELI, DIST.: PUNE,
MAHARASHTRA 412105

STATE CODE: 27

SHIPPED TO:

RAJMATA JIJAU SHIKSHAN PRASARAK MANDAL'S COLLEGE OF PHARMACY
GAT NO. 101/102 A, AT: DUDALGAON, POST: ALANDI, TALUKA: HAVELI, DIST.: PUNE,
MAHARASHTRA - 412105
TEL: 020-20280544, 9850601224 [MAHESH GIRME]
FAX: 94222979963 [MRS. SNEHA K. PATIL]

PLACE OF SUPPLY: MAHARASHTRA

ACTUNIV

Academy For Computer Training (Guj) Pvt. Ltd.

BILL No: 158/WW/AMC/22-23

DATE: 8th OCT., 2022

CUSTOMER REF: VIA EMAIL

DTD.: 15.06.2022

CUSTOMER GST NO.: NOT APPLICABLE ON EDUCATIONAL INSTITUTIONS

PAYMENT TERMS: IMMEDIATELY

CURRENCY: INDIAN RUPEES

DELIVERY: ONGOING

Tax Invoice

Academy For Computer Training (Guj) Pvt. Ltd.

REGD. OFFICE:
202-203 , Parth Empire,
Rambaug, Maninagar
Ahmedabad 380008
Tel: +91-79-2546 4080
Fax: +91-79-2546 4495

MARKETING OFFICE:
204, Silicon Towers,
Nr. Law Garden,
Off C.G. Road,
Ahmedabad 6
Gujarat, INDIA
Tel: +91-79-26468536
+91-79-2646 8538

PAN NO: AABCA2973L
STATE CODE.: 24
GST NO.:
24AABCA2973L1ZM

Company Reg. No.:
U72200GJ1996PTC028920

E-MAIL:
crm@wordsworthelt.com
Web Site:
www.actuniv.com
www.wordsworthelt.com

SAC CODE & PRODUCT CODE	QUANTITY	DESCRIPTION	UNIT PRICE	VALUE
997331 AMC	FOR A PERIOD OF ONE YEAR	Renewal, Up gradation and Annual Maintenance Charges for Words Worth Senior English Language Lab License [PERIOD: 365 days from the date of renewal of software]	25,000/-	**25,000/-**

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

TOTAL	**25,000/-**
IGST @ 18%	**4,500/-**
TOTAL	**29,500/-**

Amount In Words: **Rs. Twenty Nine Thousand Five Hundred Only**

Academy For Computer Training (Guj) Pvt. Ltd. ACTUNIV AHMEDABAD

Authorized Signatory

NOTE:
1. SUBJECT TO AHMEDABAD JURISDICTION / MEDIA TO BE PROVIDED BY Customer
2. PLEASE FAVOUR CHEQUE TO: **Academy for Computer Training (Guj.) Pvt. Ltd.**
3. **PAYMENT DETAIL: Bank Name:** ICICI Bank Limited, **Branch:** Ambawadi, Ahmedabad, **Account #** 1655 0500 0012 **IFSC Code:** ICIC0001655

TOTAL **29,500=00**

5.4) Invoices & Bills

(Zoom)

Tax Invoice

Original for Recipient and Duplicate for Supplier

ZVC India Private Limited
Raheja Platinum, No.06A113A,06A127
Sag Baug Road, Marol, Andheri East
Mumbai, Maharashtra, 400059

Invoice Date: Mar 12, 2023
Invoice #: INV192772072
Payment Terms: Due Upon Receipt
Due Date: Mar 12, 2023
Account Number: 5041946683
Currency: INR
Account Information: RJSPM's College of Pharmacy, Pune

Zoom GSTIN: 27AABCZ4218R1ZP
Zoom PAN: AABCZ4218R

Purchase Order Number:

Customer GSTIN:
Customer PAN:

Whether tax is payable on reverse charge basis - No.

Consignee (Place of supply):
RJSPM's College of Pharmacy, Pune
Gat No. 101-102, Dudulgaon, Moshi-Alandi Road,, ...
pune, Maharashtra 412105 India

rjspmsplacement@gmail.com

Zoom W-9

Question about your Digital Signature?

Name of Recipient (Billed to):
RJSPM's College of Pharmacy, Pune
Gat No. 101-102, Dudulgaon, Moshi-Alandi Road,, ...
pune, Maharashtra 412105 India

rjspmsplacement@gmail.com

Charge Details

CHARGE DESCRIPTION	SUBSCRIPTION PERIOD	SUBTOTAL	TAXES, FEES & SURCHARGES	TOTAL
Charge Name: Zoom One Pro Monthly Quantity: 1 Unit Price: INR1,300.00 HSN of Goods/Services: 998424	Mar 12, 2023 - Apr 11, 2023	INR1,300.00	INR234.00	***INR1,534.00***
			Taxable Value	**INR1,300.00**
			Total (Including Taxes, Fees & Surcharges)	**INR1,534.00**
			Invoice Balance	**INR0.00**

Taxes, Fees & Surcharge Details

CHARGE NAME	TAX, FEE OR SURCHARGE NAME	JURISDICTION	CHARGE AMOUNT	TAX, FEE OR SURCHARGE AMOUNT
Zoom One Pro Monthly	CGST (Communications) 9.000%	Federal	INR1,300.00	**INR117.00**
Zoom One Pro Monthly	SGST (Communications) 9.000%	Federal	INR1,300.00	**INR117.00**
			Total (Including Taxes, Fees & Surcharges)	**INR234.00**

Transactions

Invoice Total	**INR1,534.00**

TRANSACTION DATE	TRANSACTION NUMBER	TRANSACTION TYPE	DESCRIPTION	APPLIED AMOUNT
Mar 12, 2023	P-224492541	Payment		**INR-1,534.00**
Mar 13, 2023	R-02267884	Refund		**INR1,534.00**
Mar 21, 2023	P-226278050	Payment		**INR-1,534.00**
Mar 22, 2023	R-02291317	Refund		**INR1,534.00**
Mar 30, 2023	P-228084353	Payment		**INR-1,534.00**
Mar 31, 2023	R-02313191	Refund		**INR1,534.00**
Apr 8, 2023	P-229828171	Payment		**INR-1,534.00**
Apr 9, 2023	R-02330211	Refund		**INR1,534.00**
Apr 17, 2023	P-231531733	Payment		**INR-1,534.00**
Apr 18, 2023	R-02348982	Refund		**INR1,534.00**
May 25, 2023	IIA-10549821	Invoice Item Adjustment	Automated Approved Write Off	**INR-1,300.00**

May 25, 2023	IIA-10549822	Invoice Item Adjustment	Automated Approved Write Off	**INR-117.00**
May 25, 2023	IIA-10549825	Invoice Item Adjustment	Automated Approved Write Off	**INR-117.00**
			Invoice Balance	**INR0.00**

Need help understanding your invoice? CLICK HERE

Standard Pro and Standard Biz are now called Zoom One Pro and Zoom One Business. Please note that your Services will remai...

This plan includes products with monthly and/or yearly subscription periods. The subscription period for each plan, a...

Tax Invoice

Original for Recipient and Duplicate for Supplier

ZVC India Private Limited
Raheja Platinum, No.06A113A,06A127
Sag Baug Road, Marol, Andheri East
Mumbai, Maharashtra 400059

Invoice Date: Nov 1, 2022
Invoice #: INV173735246
Payment Terms: Due Upon Receipt
Due Date: Nov 1, 2022
Account Number: 5041946683
Currency: INR
Account Information: RJSPM's College of Pharmacy, Pune

Zoom GSTIN: 27AABCZ4218R1ZP
Zoom PAN: AABCZ4218R

Name of Consignee (Place of supply):
RJSPM's College of Pharmacy, Pune
Gat No. 101-102, Dudulgaon, Moshi-Alandi Road,, Pune, Maharashtra 412105,
pune, Maharashtra 412105 (State Code: 27)
India

rjspmsplacement@gmail.com

Purchase Order Number:

Customer GSTIN:
Customer PAN:

Whether tax is payable on reverse charge basis - No.

Name of Recipient (Billed to):
RJSPM's College of Pharmacy, Pune
Gat No. 101-102, Dudulgaon, Moshi-Alandi Road,, Pune, Maharashtra 412105,
pune, Maharashtra 412105 (State Code: 27)
India

rjspmsplacement@gmail.com

Zoom W-9

Question about your Digital Signature?

Charge Details

CHARGE DESCRIPTION	SUBSCRIPTION PERIOD	SUBTOTAL	TAXES, FEES & SURCHARGES	TOTAL
Charge Name: Zoom One Pro Monthly Quantity: 1 Unit Price: INR1,300.00 HSN of Goods/Services: HSN 998424	*Nov 1, 2022-Nov 30, 2022*	INR1,300.00	INR234.00	***INR1,534.00***

Taxable Value	**INR1,300.00**
Total (Including Taxes, Fees & Surcharges)	**INR1,534.00**
Invoice Balance	**INR1,534.00**

Taxes, Fees & Surcharge Details

CHARGE NAME	TAX, FEE OR SURCHARGE NAME	JURISDICTION	CHARGE AMOUNT	TAX, FEE OR SURCHARGE AMOUNT
Zoom One Pro/Standard Pro Monthly	SGST (Communications) 9.000%	Federal	INR1,300.00	**INR117.00**
Zoom One Pro/Standard Pro Monthly	CGST (Communications) 9.000%	Federal	INR1,300.00	**INR117.00**
			Total (Including Taxes, Fees & Surcharges)	**INR234.00**

Need help understanding your invoice? CLICK HERE

Standard Pro and Standard Biz are now called Zoom One Pro and Zoom One Business. Please note that your Services will remain the same and that this name change does not change the price of your current subscription.

This plan includes products with monthly and/or yearly subscription periods. The subscription period for each plan, and the total charge, INR1,300.00 (plus applicable taxes and regulatory fees), per subscription period for that product are set out above in the Charge Details section. Unless you cancel, your subscription(s) will auto-renew each subscription period and each subscription period thereafter, at the price(s) listed above (plus any taxes and regulatory fees applicable at the time of renewal) and your payment method on file at zoom.us/billing will be charged. You can cancel auto-renewal anytime, but you must cancel by the last day of your current subscription period to avoid being charged for the next subscription period. You will not be able to cancel your "base plan" (Zoom Meetings, Zoom Phone, or Zoom Rooms) without first canceling all other subscriptions in your plan. If you cancel, you will not receive a refund for the remainder of your then-current subscription period. You can cancel by navigating to zoom.us/billing and clicking "Cancel Subscription," clicking through the prompts, and then clicking to confirm cancellation. Should Zoom change its pricing, it will provide you with notice, and you may be charged the new price for subsequent subscription.

Tax Invoice

Original for Recipient and Duplicate for Supplier

ZVC India Private Limited
Raheja Platinum, No.06A113A,06A127
Sag Baug Road, Marol, Andheri East
Mumbai, Maharashtra 400059

Invoice Date: Oct 1, 2022
Invoice #: INV169246440
Payment Terms: Due Upon Receipt
Due Date: Oct 1, 2022
Account Number: 5041946683
Currency: INR
Account Information: RJSPM's College of Pharmacy, Pune

Name of Consignee (Place of supply):
RJSPM's College of Pharmacy, Pune
Gat No. 101-102, Dudulgaon, Moshi-Alandi Road,, Pune, Maharashtra 412105,
pune, Maharashtra 412105 (State Code: 27)
India

rjspmsplacement@gmail.com

Name of Recipient (Billed to):
RJSPM's College of Pharmacy, Pune
Gat No. 101-102, Dudulgaon, Moshi-Alandi Road,, Pune, Maharashtra 412105,
pune, Maharashtra 412105 (State Code: 27)
India

rjspmsplacement@gmail.com

Zoom GSTIN: 27AABCZ4218R1ZP
Zoom PAN: AABCZ4218R

Purchase Order Number:

Customer GSTIN:
Customer PAN:

Whether tax is payable on reverse charge basis - No.

Zoom W-9

Question about your Digital Signature?

Charge Details

CHARGE DESCRIPTION	SUBSCRIPTION PERIOD	SUBTOTAL	TAXES, FEES & SURCHARGES	TOTAL
Charge Name: Zoom One Pro Monthly Quantity: 1 Unit Price: INR1,300.00 HSN of Goods/Services: HSN 998424	*Oct 1, 2022-Oct 31, 2022*	INR1,300.00	INR234.00	***INR1,534.00***

Taxable Value	**INR1,300.00**
Total (Including Taxes, Fees & Surcharges)	**INR1,534.00**
Invoice Balance	**INR1,534.00**

Taxes, Fees & Surcharge Details

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

CHARGE NAME	TAX, FEE OR SURCHARGE NAME	JURISDICTION	CHARGE AMOUNT	TAX, FEE OR SURCHARGE AMOUNT
Zoom One Pro/Standard Pro Monthly	SGST (Communications) 9.000%	Federal	INR1,300.00	**INR117.00**
Zoom One Pro/Standard Pro Monthly	CGST (Communications) 9.000%	Federal	INR1,300.00	**INR117.00**
			Total (Including Taxes, Fees & Surcharges)	**INR234.00**

Need help understanding your invoice? CLICK HERE

Standard Pro and Standard Biz are now called Zoom One Pro and Zoom One Business. Please note that your Services will remain the same and that this name change does not change the price of your current subscription.

This plan includes products with monthly and/or yearly subscription periods. The subscription period for each plan, and the total charge, INR1,300.00 (plus applicable taxes and regulatory fees), per subscription period for that product are set out above in the Charge Details section. Unless you cancel, your subscription(s) will auto-renew each subscription period and each subscription period thereafter, at the price(s) listed above (plus any taxes and regulatory fees applicable at the time of renewal) and your payment method on file at zoom.us/billing will be charged. You can cancel auto-renewal anytime, but you must cancel by the last day of your current subscription period to avoid being charged for the next subscription period. You will not be able to cancel your "base plan" (Zoom Meetings, Zoom Phone, or Zoom Rooms) without first canceling all other subscriptions in your plan. If you cancel, you will not receive a refund for the remainder of your then-current subscription period. You can cancel by navigating to zoom.us/billing and clicking "Cancel Subscription," clicking through the prompts, and then clicking to confirm cancellation. Should Zoom change its pricing, it will provide you with notice, and you may be charged the new price for subsequent subscription.

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

Tax Invoice

Original for Recipient and Duplicate for Supplier

ZVC India Private Limited
Raheja Platinum, No.06A113A,06A127, Sag Baug Road,
Marol, Andheri East, Mumbai, Mumbai City,
Maharashtra, 400059

Invoice Date: May 16, 2022
Invoice #: INV148442492
Payment Terms: Due Upon Receipt
Due Date: May 16, 2022
Account Number: 3008008069
Currency: INR
Account Information: RJSPM's College of Pharmacy, Pune

Zoom GSTIN: 27AABCZ4218R1ZP
Zoom PAN: AABCZ4218R

Purchase Order Number:

Name of Consignee (Place of supply):
RJSPM's College of Pharmacy Pune
Gat No. 101-102, Moshi-Alandi Road,Dudulgaon, Pune – 412105,
Maharashtra (India),
PUNE, Maharashtra 412105 (State Code: 27)
India

rjspmcopexam2020@gmail.com

Customer GSTIN:
Customer PAN:

Whether tax is payable on reverse charge basis - No.

Name of Recipient (Billed to):
RJSPM's College of Pharmacy Pune
Gat No. 101-102, Moshi-Alandi Road,Dudulgaon, Pune – 412105,
Maharashtra (India),
PUNE, Maharashtra 412105 (State Code: 27)
India

rjspmcopexam2020@gmail.com

Zoom W-9

Question about your Digital Signature?

Charge Details

CHARGE DESCRIPTION	SUBSCRIPTION PERIOD	SUBTOTAL	TAXES, FEES & SURCHARGES	TOTAL
Charge Name: Standard Pro Monthly Quantity: 1 Unit Price: INR1,300.00 HSN of Goods/Services: HSN 998424	*May 16, 2022-Jun 15, 2022*	INR1,300.00	INR234.00	***INR1,534.00***

Taxable Value	**INR1,300.00**
Total (Including Taxes, Fees & Surcharges)	**INR1,534.00**
Invoice Balance	**INR0.00**

Taxes, Fees & Surcharge Details

Rajmata Jijau S.P.M.'s College Of Pharmacy PH 6382

PRINCIPAL
Rajmata Jijau Shikshan Prasarak Mandal's
COLLEGE OF PHARMACY
Dudulgaon, Pune-412 105.

CHARGE NAME	TAX, FEE OR SURCHARGE NAME	JURISDICTION	CHARGE AMOUNT	TAX, FEE OR SURCHARGE AMOUNT
Standard Pro Monthly	SGST (Communications) 9.000%	Federal	INR1,300.00	**INR117.00**
Standard Pro Monthly	CGST (Communications) 9.000%	Federal	INR1,300.00	**INR117.00**
			Total (Including Taxes, Fees & Surcharges)	**INR234.00**

Transactions

Invoice Total	**INR1,534.00**

TRANSACTION DATE	TRANSACTION NUMBER	TRANSACTION TYPE	DESCRIPTION	APPLIED AMOUNT
Jun 9, 2022	IIA-07362100	Invoice Item Adjustment	Automated Approved Write Off	**(INR1,300.00)**
Jun 9, 2022	IIA-07362101	Invoice Item Adjustment	Automated Approved Write Off	**(INR117.00)**
Jun 9, 2022	IIA-07362102	Invoice Item Adjustment	Automated Approved Write Off	**(INR117.00)**
			Invoice Balance	**INR0.00**

Need help understanding your invoice? CLICK HERE

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