



GOVERNMENT DEGREE COLLEGE

Razole, East Godavari District, A.P.

www.gdcrazole.ac.in

Reaccredited by NAAC with grade "B"

Certificate Course on
"ChemSketch"

December 2020-February 2021



CERTIFICATE

This is to certify that Prof./Dr./Sri. /Smt./Kum _____

Professor/Reader/Lecturer/Student in _____ of _____

Has successfully completed Certificate Course on "ChemSketch" software organized by Dept. of Chemistry, Government Degree College, Razole held from December 2020-February 2021.

IQAC Co-ordinator

In-charge
Dept of Chemistry

Principal

DEPARTMENT OF CHEMISTRY

GOVERNMENT DEGREE COLLEGE, RAZOLE

Syllabus for “ChemSketch” Certificate course

1. Basics of ACD ChemSketch: -
Objectives, Starting ChemSketch, setting file associations, changing default directories, installing add-ons.
2. Drawing Simple molecules:-
Objectives, Drawing atoms, bonds and labels, cleaning the screen, flipping structures, Output.
3. Drawing more complex structures:-
Using the table of Radicals, ring structures, deleting atoms and fragments, replacing atoms, setting double, triple bonds, setting charges, defining anions, cations, Markush bonds, Generating stereo descriptors, drawing coordination bonds, delocalized charges and curves, changing atom properties.
4. Advanced structures, SMILES, InChi notations, reaction schemes:
2D-optimization, SMILES Notations, InChi notations, 3D-Optimization, Drawing, labeling and mapping reactions.
5. Advanced Drawing: Templates
Table of radicals, instant template tool, template window, drawing complex structures of biomolecules, defining a user template
6. Calculating macroscopic properties:
Menu command, automatic display on status bar, calculating monoisotopic mass for a fragment (Mass spec scissors)
7. Special function keys:
Tautomers, ACD dictionary
8. Creating Graphical Objects:
Drawing the energy of a graphical diagram, drawing different kinds of Orbitals, drawing vacuum distillation apparatus, drawing two chains DNA strand, drawing lipids, miscelles, creating tables.
9. Managing documents:
Converting to adobe PDF, creating a poster, inserting headers and footers
10. Working with structures in style mode:
Changing the style of a structure, creating your own style
11. Working with structures in drawing mode:
Changing the style of an object, saving a style, applying an existing style, setting a default style

DEPARTMENT OF CHEMISTRY

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Exam for “ChemSketch” Certificate course

Answer all Questions

5 X 4 =20 M

1. What are the functions of Structure & Draw mode in ChemSketch software?

2. What are SMILES, InCHI Notations?

3. Draw the following molecule

2-Methyl Hexanol

4. Draw the following molecule

Phenanthracene

5. Draw the following molecule

Reimer-Tiemann reaction

Department of Chemistry

2020-2021

No. of Days		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
S.No	Name of the Student	09-12-2020	10-12-2020	11-12-2020	14-12-2020	15-12-2020	16-12-2020	17-12-2020	18-12-2020	19-12-2020	21-12-2020	22-12-2020	29-12-2020	30-12-2020	31-12-2020	04-01-2021
1	B. Haritha	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	K.Mounika	A	P	P	P	P	A	P	P	A	A	P	P	P	P	P
3	T.Lakshmi priya	P	A	A	A	P	P	A	P	A	P	P	A	P	P	A
4	P.Anjali	P	A	P	P	P	A	P	P	P	A	P	P	P	A	P
5	P.Chandra jyothi	A	A	P	P	P	P	P	P	P	P	A	P	P	A	A
6	K.Naga Masa Raju	P	P	A	A	P	P	P	A	P	A	P	A	P	P	P
7	N.Komali Sai Mallishwari	p	p	p	p	p	p	p	p	p	A	p	p	p	p	p
8	V.Suma	p	p	p	p	p	p	p	p	p	p	p	A	p	p	p

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