Shivraj College of Arts, Commerce and D. S. Kadam Science College, Gadhinglaj Post Graduate Department of Chemistry M.Sc. (Chemistry)

On completion of M. Sc. in (Organic Chemistry) the candidate will have:

PROGRAM OUTCOMES (PO)

- > Demonstrate, solve and an understanding of major concepts in all disciplines of Chemistry.
- Solve the problem and also think methodically, independently and draw a logical conclusion.
- Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of chemical reactions.
- Create an awareness of the impact of Chemistry on the environment, society and development outside the scientific community.
- > Find out the green route for chemical reaction for sustainable development.
- > To inculcate the scientific temperament in the students and outside the scientific community.
- > Use modern techniques, decent equipment's and Chemistry Software's.

PROGRAM SEPCIFIC OUTCOMES (PSO)

- > Gain the knowledge of Chemistry through theory and practical's.
- To explain nomenclature, stereochemistry, structures, reactivity and mechanism of the chemical reactions.
- ➤ Use modern chemical tools, Models, Chem-draw, Charts and Equipment's.
- ➤ Know the structure-activity relationship.
- > Understand good laboratory practices and safety.
- > Make aware and handle the sophisticated instruments/equipment.
- Develop research oriented skills to pursue Ph.D. Programme and specific placements in R & D and synthetic division of chemical industries & Allied Division.
- > Discipline specific competitive exams conducted by CSIR NET, service commission, etc.

COURSE OUTCOME (CO)

Class	Course	Semester	Outcome
M.Sc. I	Inorganic Chemistry	Semester-I	1. The students will know the importance of
	Organic Chemistry	and	nuclear chemistry and its applications.
	Physical Chemistry	Semester-II	2. Students will transform from memorization
	Analytical Chemistry		to understanding by programmed exposure to
			integrated problems involving mechanism,
			multi- step synthetic planning, and organic
			spectroscopy.
			3. Acquire better knowledge of analytical
			techniques.
			4. Use & handling of sophisticated instruments.
M.Sc. II	Organic Reaction	Semester-III	1. Understand and interpret spectra (UV-VIS,
	Mechanism		IR, ¹ H NMR, ¹³ C NMR Spectroscopy and
	Spectroscopic Methods		Mass Spectrometry) of organic molecules.
	Advanced Synthetic		2. To learn the concept of stereochemistry and
	Techniques		its importance.
	Drugs and		3. To familiarize the various types of aromatic
	Heterocycles		substitution reaction and their mechanism.
	Theoretical Organic	Semester-IV	4. To learn what is Advanced Synthetic
	Chemistry		Techniques.
	Stereochemistry		
	Chemistry of Natural		
	Products		
	Applied Organic		
	Chemistry		