

LESSON PLAN FOR EVEN SEM
SESSION 2017-18

NAME OF ASSISTANT PROFESSOR : DR. SAT NARAYAN
CLASS/SECTION : M.Sc. (F) Sem IV
SUBJECT : Organic Chemistry (Classes on day 1, 4, 5)

UNIT/PART I	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 1-1-18	Synthesis of Pyrazoles	.....
DAY2 DATE 4-1-18	Reactions of Pyrazoles	.....
DAY3 DATE 5-1-18	.....	Quantitative estimation: Saponification value of fats
DAY4 DATE 8-1-18	Synthesis of Imidazoles	.....
DAY5 DATE 11-1-18	Reactions of Imidazoles	.....
DAY6 DATE 12-1-18	.....	Quantitative estimation: Saponification value of fats
DAY7 DATE 15-1-18	Synthesis of Oxazoles	.....
DAY8 DATE 18-1-18	Reactions of Oxazoles	.....
DAY9 DATE 19-1-18	TEST	Quantitative estimation: Saponification value of oils
DAY10 DATE 22-1-18	HOLIDAY	HOLIDAY
DAY11 DATE 25-1-18	Synthesis of Isoxazoles	.....
DAY12 DATE 26-1-18	HOLIDAY	HOLIDAY
UNIT/PART II	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 29-1-18	Reactions of Isoxazoles	.....
DAY2 DATE 1-2-18	Synthesis of Thiazoles	.....
DAY3 DATE 2-2-18	.....	Quantitative estimation: Iodine value of fats
DAY4 DATE 5-2-18	Reactions of Thiazoles	.....
DAY5	Synthesis of Isothiazoles	.....

DATE 8-2-18		
DAY6 DATE 9-2-18	.....	Quantitative estimation: Iodine value of oils
DAY7 DATE 12-2-18	Reactions of Isothiazoles	.....
DAY8 DATE 15-2-18	Basic Characters of Azoles	.....
DAY9 DATE 16-2-18	.....	Quantitative estimation: Unsaturation
DAY10 DATE 19-2-18	TEST	.....
DAY11 DATE 22-2-18	Nomenclature of Fused ring system-I	.....
DAY12 DATE 23-2-18	.....	Quantitative estimation: Reducing sugars
UNIT/PART III	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 26-2-18	Nomenclature of Fused Ring system-II	.....
DAY2 DATE 1-3-18	HOLIDAY	HOLIDAY
DAY3 DATE 2-3-18	HOLIDAY	HOLIDAY
DAY4 DATE 5-3-18	Arndt-Eistert synthesis-I	.....
DAY5 DATE 8-3-18	Arndt-Eisert synthesis-II	.....
DAY6 DATE 9-3-18	.....	Quantitative estimation of glycine
DAY 7 DATE 12-3-18	Beckmann-I	.....
DAY8 DATE 15-3-18	Beckmann-II	.....
DAY9 DATE 16-3-18	.....	Colorimetric determination of Carbohydrates
DAY9 DATE 19-3-18	Hofmann-I	.....
DAY10 DATE 22-3-18	Curtius	.....
DAY 11 DATE 23-3-18	HOLIDAY	HOLIDAY
UNIT/PART IV	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 26-3-18	Schimidt	.....

DAY2 DATE 29-3-18	HOLIDAY	
DAY3 DATE 30-3-18	.....	Isolation and purification of caffeine from tea leaves
DAY4 DATE 2-4-18	Lossen	.....
DAY5 DATE 5-4-18	Favirskii	.....
DAY6 DATE 6-4-18	.....	Separation and purification of mixtures using TLC-II
DAY7 DATE 9-4-18	Neber	.....
DAY8 DATE 12-4-18	Fritsch -Butenberg-Wiechell, Baeyer-Villiger	.....
DAY9 DATE 13-4-18	.....	Use of Chem Draw software for drawing structures and analysis
DAY10 DATE 16-4-18	Benzil-benzilic acid rearrangements	.....
DAY11 DATE 19-4-18	TEST	.....
DAY12 DATE 20-4-18	.....	Use of Chem Draw software for drawing structures and analysis

LESSON PLAN FOR EVEN SEM
SESSION 2017-18

NAME OF ASSISTANT PROFESSOR : DR. SAT NARAYAN
CLASS/SECTION : M.Sc. (P) Sem II
SUBJECT : Organic Chemistry (Classes on day 2, 6)

UNIT/PART I	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 2-1-18	.....	Two Step Organic Preparation-I
DAY2 DATE 6-1-18	Theoretical treatment of aromatic substitution reactions	.....
DAY3 DATE 9-1-18	.....	Two Step Organic Preparation-II
DAY4 DATE 13-1-18	Structure-reactivity relationship in mono substituted benzene ring	.....
DAY5 DATE 16-1-18	.....	Two Step Organic Preparation-III
DAY6 DATE 20-1-18	Orientation in other ring system	.....

DAY7 DATE 23-1-18	SPORTS DAY	
DAY 8 DATE 27-1-18	Energy profile diagram	.....
UNIT/PART II	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 30-1-18	.....	Two Step Organic Preparation-V
DAY2 DATE 3-2-18	Vilsmeier-Haak reaction and Reimer-Tiemann reaction	.....
DAY3 DATE 6-2-18	.....	Mixture Analysis
DAY4 DATE 10-2-18	HOLIDAY	HOLIDAY
DAY5 DATE 13-2-18	HOLIDAY	HOLIDAY
DAY6 DATE 17-2-18	TEST	.....
DAY7 DATE 20-2-18		Mixture Analysis
UNIT/PART III	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 24-2-18	Bischler-Napieralski reaction, Pechmann reaction	
DAY2 DATE 27-2-18	TEST & SEMINAR (PG CLASSES)	Mixture Analysis
DAY3 DATE 3-3-18	HOLIDAY	HOLIDAY
DAY4 DATE 6-3-18	.....	Mixture Analysis
DAY5 DATE 10-3-18	Houben-Hoesch reaction and Fries Rearrangement	.....
DAY6 DATE 13-3-18	.....	Mixture Analysis
DAY7 DATE 17-3-18	Mechanism of Nucleophilic substitution in aromatic systems via diazonium ions	.....
DAY8 DATE 20-3-18	.....	Mixture Analysis
DAY9 DATE 24-3-18	Mechanism of Nucleophilic substitution in aromatic systems by addition-elimination	.....
UNIT/PART IV	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 27-3-18	.....	Mixture Analysis

DAY2 DATE 31-3-18	Mechanism of Nucleophilic substitution in aromatic systems by elimination-addition mechanism (involving arynes )	.....
DAY3 DATE 3-4-18	.....	Mixture Analysis
DAY4 DATE 7-4-18	Von-Richter rearrangement, Sommelet-Hauser and Stevens rearrangements	.....
DAY5 DATE 10-4-18	.....	Mixture Analysis
DAY6 DATE 14-4-18	HOLIDAY	HOLIDAY
DAY7 DATE 17-4-18	.....	Mixture Analysis

LESSON PLAN FOR EVEN SEM SESSION 2017-18

NAME OF ASSISTANT PROFESSOR :Dr. Sat Narayan
CLASS/SECTION : B.Sc IInd
SUBJECT :Organic Chemistry(Day -3,4)

UNIT/PART I	Topic- Amines And IR Spectroscopy	
	THEORY	PRACTICAL
DAY1 DATE 3-1-18	Amines:-Structure and nomenclature of amines, Physical properties	.....
DAY2 DATE 4-1-18	Separation of a mixture of primary, secondary and tertiary amines. Structural features affecting basicity of amines.	.....
DAY3 DATE 10-1-18	Preparation of alkyl and aryl amines (reduction of nitro compounds, nitriles, reductive amination of aldehydic and ketonic compounds)	.....
DAY4 DATE 11-1-18	Gabriel-phthalimide reaction, Hofmann bromamide reaction	.....
DAY5 DATE 17-1-18	Electrophilic aromatic substitution in aryl amines, reactions of amines with nitrous acid	.....
DAY6 DATE 18-1-18	Infrared (IR) absorption spectroscopy:Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands	
DAY7 DATE 24-1-18	HOLIDAY	HOLIDAY

DAY8 DATE 25-1-18	Measurement of IR spectrum, fingerprint region	.....
UNIT/PART II	TOPIC- IR SPECTROSCOPY AND DIAZONIUM SALTS	
	THEORY	PRACTICAL
DAY1 DATE 1-2-18	Characteristic absorptions of various functional groups	.....
DAY2 DATE 7-2-18	Interpretation of IR spectra of simple organic compounds	.....
DAY3 DATE 8-2-18	Applications of IR spectroscopy in structure elucidation of simple organic compound.	.....
DAY4 DATE 14-2-18	Diazonium Salts -Mechanism of diazotisation, structure of benzene diazonium chloride	.....
DAY5 DATE 15-2-18	I R Examples and their problems.	.....
DAY6 DATE 21-2-18	Replacement of diazo group by H, OH, F, Cl, Br, I, NO ₂ and CN groups	.....
DAY7 DATE 22-2-18	Reduction of diazonium salts to hyrazines	.....
UNIT/PART III	TOPIC-ALDEHYDES AND KETONES	
	THEORY	PRACTICAL
DAY1 DATE 28-2-18	HOLIDAY	HOLIDAY
DAY2 DATE 1-3-18	HOLIDAY	HOLIDAY
DAY3 DATE 7-3-18	Coupling reaction and its synthetic application	.....
DAY4 DATE 8-3-18	Aldehydes and Ketones: Nomenclature and structure of the carbonyl group	.....
DAY5 DATE 14-3-18	Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides	.....
DAY6 DATE 15-3-18	Advantage of oxidation of alcohols with chromium trioxide (Sarett reagent) pyridinium chlorochromate (PCC) and pyridinium dichromate.	.....
DAY7 DATE 21-3-18	CONDITIONAL TEST	.....
DAY8 DATE 22-3-18	CONDITIONAL TEST	.....

UNIT/PART IV	TOPIC- ALDEHYDES AND KETONES	
	THEORY	PRACTICAL
DAY1 DATE 28-3-18	Comparison of reactivities of aldehydes and ketones and their physical properties	.....
DAY2 DATE 29-3-18	HOLIDAY	HOLIDAY
DAY3 DATE 4-4-18	Mechanism of nucleophilic additions to carbonyl group with particular emphasis on benzoin, aldol condensation.	.....
DAY4 DATE 5-4-18	Perkin and Knoevenagel condensations. Wittig reaction. Mannich reaction	.....
DAY5 DATE 11-4-18	Condensation with ammonia and its derivatives	.....
DAY6 DATE 12-4-18	Oxidation of aldehydes, Baeyer–Villiger oxidation of ketones, Cannizzaro reaction.	.....
DAY7 DATE 18-4-18	HOLIDAY	HOLIDAY
DAY8 DATE 19-4-18	MPV, Clemmensen , Wolff-Kishner, LiAlH ₄ and NaBH ₄ reductions.	.....