

**LESSON PLAN FOR EVEN SEM**  
**SESSION 2017-18**

**NAME OF ASSISTANT PROFESOR : MS. POOJA BHATIA**  
**CLASS/SECTION : M.SC(F)**  
**SUBJECT : ORGANIC CHEMISTRY (DAY 3)**  
**PRACTICAL ( DAY 2)**

UNIT III( PAPER XX)	TOPIC: Antibiotic	
	THEORY	PRACTICAL
DAY1 DATE 2-1-18	.....	M.Sc(F Pr.) Organic Mix
DAY2 DATE 3-1-18	<b>Antibiotic</b> : Cell wall biosynthesis and protein synthesis inhibitors	.....
DAY3 DATE 9-1-18	.....	M.Sc(F Pr.) Organic Mix
DAY4 DATE 10-1-18	Penicillins and semi -synthetic penicillins	.....
DAY 5 DATE 16-1-18	.....	M.Sc(F Pr.) Organic Mix
DAY 6 DATE 17-1-18	structure elucidation of Penicillin G	.....
DAY7 DATE 23-1-18	<b>SPORTS DAY</b>	<b>SPORTS DAY</b>
DAY8 DATE 24-1-18	<b>HOLIDAY</b>	
DAY9 DATE 30-1-18	.....	M.Sc(F Pr.) Organic Mix
DAY10 DATE 31-1-18	<b>HOLIDAY</b>	
DAY11 DATE 6-2-18	.....	M.Sc(F Pr.) Organic Mix
DAY12 DATE 7-2-18	<b>ASSIGNMENT 1</b>	.....
DAY13 DATE 13-2-18	<b>HOLIDAY</b>	<b>HOLIDAY</b>
DAY14 DATE 14-2-18	structure elucidation of Penicillin G	.....
DAY15 DATE 20-2-18	.....	M.Sc(F Pr.) Organic Mix
DAY16 DATE 21-2-18	synthesis of penicillin G	.....
DAY17	.....	M.Sc(F Pr.) Organic

DATE 6-3-18		Mix
DAY18 DATE 7-3-18	medicinal uses of penicillin G	.....
DAY19 DATE 13-3-18	.....	M.Sc(F Pr.) Organic Mix
DAY20 DATE 14-3-18	<b>ASSIGNMENT 2</b>	.....
DAY21 DATE 20-3-18	.....	M.Sc(F Pr.) Organic Mix
DAY22 DATE 21-3-18	problems of sensitivity to acids, Beta-lactamases	.....
DAY23 DATE 27-3-18	.....	M.Sc(F Pr.) Organic Mix
DAY24 DATE 28-3-18	narrow spectrum of activity, penicillin V	.....
DAY25 DATE 3-4-18	.....	M.Sc(F Pr.) Organic Mix
DAY26 DATE 4-4-18	oxacillin, cloxacillin, ampicillin, amoxicillin, carbenicillin	.....
DAY27 DATE 10-4-18	.....	M.Sc(F Pr.) Organic Mix
DAY28 DATE 11-4-18	M.Sc(F ) Cephalosporins	.....
DAY29 DATE 17-4-18	.....	M.Sc(F Pr.) Organic Mix
DAY30 DATE 18-4-18	<b>HOLIDAY</b>	.....

**NAME OF ASSISTANT PROFESSOR : MS. POOJA BHATIA**

**CLASS/SECTION : B.SC(III) B**

**SUBJECT : ORGANIC (DAY 5,6)  
PRACTICAL ( DAY 6)**

UNIT/PART I	TOPIC: ENOLATES	
	THEORY	PRACTICAL
DAY1 DATE 5-1-18	<b>Organic Synthesis via Enolate: Basics</b>	.....
DAY2 DATE 6-1-18	Acidity of Alpha -hydrogens, alkylation of diethyl malonate and ethyl acetoacetate	qualitative analysis of mixture
DAY3 DATE 12-1-18	Synthesis of ethyl acetoacetate: the Claisen Condensation , Keto-enol tautomerism of ethyl acetoacetate	.....

DAY4 DATE 13-1-18	<b>Synthetic Polymers</b> Addition or chain-growth polymer ization. Free radical vinyl polymer ization, ionic vinyl polymerizat ion, Ziegler –Natta polymerization and vinyl polymers.	qualitative analysis of mixture
DAY5 DATE 19-1-18	polyamides, phenol formaldehyde resins.	.....
DAY6 DATE 20-1-18	Natural and synthetic rubber	qualitative analysis of mixture
DAY7 DATE 26-1-18	<b>HOLIDAY</b>	.....
DAY8 DATE 27-1-18	TEST	qualitative analysis of mixture
<b>UNIT/PART II</b>	<b>TOPIC: HETEROCYCLIC</b>	
	<b>THEORY</b>	<b>PRACTICAL</b>
DAY1 DATE 2-2-18	Methods of synthesis of pyridine	.....
DAY2 DATE 3-2-18	Methods of synthesis of pyridine	qualitative analysis of mixture
DAY3 DATE 9-2-18	<b>ASSIGNMENT ON ENOLATES</b>	.....
DAY4 DATE 10-2-18	<b>HOLIDAY</b>	qualitative analysis of mixture
DAY5 DATE 16-2-18	Mechanism of nucleophilic substitution reactions in pyridine derivatives. Comparison of basicity of pyridine, piperidine and pyrrole	.....
DAY6 DATE 17-2-18	Mechanism of reactions piperidine and pyrrole. Reaction of furan, Thiophine	qualitative analysis of mixture
DAY7 DATE 23-2-18	Mechanism of reactions piperidine and pyrrole. Reaction of furan, Thiophine	.....
<b>UNIT/PART III</b>	<b>TOPIC HETEROCYCLIC -2</b>	
	<b>THEORY</b>	<b>PRACTICAL</b>
DAY1 DATE 24-2-18	Skraup synthesis and Bischler-Napieralski	qualitative analysis of mixture
DAY2 DATE 9-3-18	Preparation and reactions of indole, with special reference to Fisher indole synthesis	.....
DAY3 DATE 10-3-18	<b>ASSIGNMENT 2</b>	qualitative analysis of mixture
DAY4 DATE 16-3-18	Mechanism of electrophilic substitution reactions of indole	.....
DAY5 DATE 17-3-18	Mechanism of electrophilic substitution reactions of, quinoline and isoquinoline	qualitative analysis of mixture
DAY6	<b>HOLIDAY</b>	<b>HOLIDAY</b>

DATE 23-3-18		
DAY 7 DATE 24-3-18	<b>CONDITIONAL TEST</b>	qualitative analysis of mixture
<b>UNIT/PART IV</b>	<b>TOPIC: AMINO ACIDS</b>	
	<b>THEORY</b>	<b>PRACTICAL</b>
DAY1 DATE 30-3-18	Classification of amino acids. Acid-base behavior, isoelectric Point and electrophoresis	.....
DAY2 DATE 31-3-18	Preparation of amino acids	qualitative analysis of mixture
DAY11 DATE 6-4-18	Peptide structure determination, end group analysis, selective hydrolysis of peptides	.....
DAY3 DATE 7-4-18	Structures of peptides and proteins	qualitative analysis of mixture
DAY4 DATE 13-4-18	Structures of peptides and proteins	.....
DAY5 DATE 14-4-18	<b>HOLIDAY</b>	<b>HOLIDAY</b>
DAY6 DATE 20-4-18	test of proteins	.....

**NAME OF ASSISTANT PROFESSOR : MS. POOJA BHATIA**  
**CLASS/SECTION : B.SC.(II)( DAY 5) GP:S<sub>9</sub>**  
**SUBJECT : PRACTICAL**

UNIT/PART 1	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 5-1-18	.....	<b>Gravimetric Analysis:</b> Al <sup>3+</sup> as oxinate
DAY2 DATE 12-1-18	.....	<b>Gravimetric Analysis:</b> Al <sup>3+</sup> as oxinate
DAY3 DATE 19-1-18	.....	identification of organic compound
DAY4 DATE 26-1-18	.....	<b>HOLIDAY</b>
DAY5 DATE 2-2-18	.....	identification of organic compound
DAY6 DATE 9-2-18	.....	identification of organic compound
DAY7 DATE 16-2-18	.....	identification of organic compound
DAY8	.....	identification of organic compound

DATE 23-2-18		
DAY9 DATE 9-3-18	.....	identification of organic compound
DAY10 DATE 16-3-18	.....	identification of organic compound
DAY11 DATE 23-3-18	.....	<b>HOLIDAY</b>
DAY12 DATE 30-3-18	.....	identification of organic compound
DAY13 DATE 6-4-18	.....	identification of organic compound
DAY14 DATE 13-4-18	.....	identification of organic compound
DAY15 DATE 20-4-18	.....	Test with Viva

**NAME OF ASSISTANT PROFESSOR : MS. POOJA BHATIA**  
**CLASS/SECTION : B.SC(I) A**  
**SUBJECT : ORGANIC ( DAY 3,4) +PRACTICAL ( DAY 1,3,4)**  
 \*DAY 1: GP F<sub>3</sub>  
 \*\*DAY 3,4: GP F<sub>5</sub>

UNIT/PART I	TOPIC: Alkene	
	THEORY	PRACTICAL
DAY1 DATE 1-1-18	.....	<b>Volumetric Analysis</b> Preparation of reference solutions
DAY2 DATE 3-1-18	<b>Alkene s</b> Nomenclature of alkene	<b>Volumetric Analysis</b> Preparation of reference solutions
DAY3 DATE 4-1-18	dehydrohalogenation of alkyl halide. The Saytzeff rule	<b>Volumetric Analysis</b> Preparation of reference solutions
DAY4 DATE 8-1-18	.....	<b>Redox titrations</b>
DAY5 DATE 10-1-18	Hofmann elimination, physical properties and relative stabilities of alkenes	<b>Redox titrations</b>
DAY6 DATE 11-1-18	hydrogenation, free radical additions,	Determination of Fe <sup>2+</sup> Using KMnO <sub>4</sub>
DAY7 DATE 15-1-18	.....	Determination of Fe <sup>2+</sup> Using KMnO <sub>4</sub>
DAY8 DATE 17-1-18	Markownikoff's rule, hydroboration-oxidation, oxymercuration reduction	Determination of Fe <sup>2+</sup> (using K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> )
DAY9 DATE 18-1-18	hydroxylation and oxidation with KMnO <sub>4</sub>	Determination of C <sub>2</sub> O <sub>4</sub> <sup>2-</sup> (using KMnO <sub>4</sub> )
DAY10 DATE 22-1-18	<b>HOLIDAY</b>	<b>HOLIDAY</b>

DAY11 DATE 24-1-18	<b>HOLIDAY</b>	<b>HOLIDAY</b>
DAY12 DATE 25-1-18	ozonolysis, hydration	<b>Complexometric titrations</b>
<b>UNIT/PART II</b>	<b>TOPIC: Arenes and Aromaticity</b>	
	<b>THEORY</b>	<b>PRACTICAL</b>
DAY1 DATE 1-2-18	Nomenclature and classification of dienes: isolated, conjugated and cumulated dienes. Structure of butadiene	Determination of $Mg^{2+}$ by EDTA
DAY2 DATE 5-2-18	.....	Determination of $Fe^{2+}$ (using $K_2Cr_2O_7$ )
DAY3 DATE 7-2-18	Aromatic electrophilic substitution general pattern of the mechanism	Determination of $Zn^{2+}$ by EDTA
DAY4 DATE 8-2-18	<b>ASSIGNMENT 1</b>	surface tension of Surfactant solution
DAY5 DATE 12-2-18	.....	<b>Complexometric titrations</b>
DAY6 DATE 14-2-18	mechanism of nitration, halogenation, sulphonation, and Friedel-Crafts reaction	REVISION OF ORGANIC PRACTICALS
DAY7 DATE 15-2-18	mechanism of nitration, halogenation, sulphonation, and Friedel-Crafts reaction	TEST OF ORGANIC PRACTICALS
DAY8 DATE 19-2-18	.....	Determination of $Mg^{2+}$ by EDTA
DAY9 DATE 21-2-18	Activating ,deactivating substituents and orientation.	Determination of $Mg^{2+}$ by EDTA
DAY10 DATE 22-2-18	Energy profile diagrams	Determination of $Zn^{2+}$ by EDTA
<b>UNIT/PART III</b>	<b>TOPIC: Dienes and Alkynes</b>	
	<b>THEORY</b>	<b>PRACTICAL</b>
DAY1 DATE 26-2-18	.....	Determination of $Zn^{2+}$ by EDTA
DAY2 DATE 28-2-18	<b>HOLIDAY</b>	<b>HOLIDAY</b>
DAY3 DATE 1-3-18	<b>HOLIDAY</b>	<b>HOLIDAY</b>
DAY4 DATE 5-3-18	.....	test of complexometric titrations
DAY5 DATE 7-3-18	Nomenclature and classification of dienes: isolated, conjugated and cumulated dienes. Structure of butadiene	Purification of a compound
DAY6 DATE 8-3-18	<b>ASSIGNMENT2</b> Chemical reactions: 1,2 and 1,4 additions (Electrophilic & free radical mechanism), Diels-Alder reaction	Purification of a compound

DAY 7 DATE 12-3-18	.....	<b>Iodometric titrations</b>
DAY8 DATE 14-3-18	Chemical reactions of alkynes, acidity of alkynes.	test of complexometric titrations
DAY17 DATE 15-3-18	Mechanism of electrophilic and nucleophilic addition reactions, hydroboration-oxidation of alkynes.	<b>Iodometric titrations</b>
DAY9 DATE 19-3-18	.....	Determination of Cu <sup>2+</sup> (using standard hypo solution).
DAY10 DATE 21-3-18	<b>CONDITIONAL TEST</b>	VIVA
DAY11 DATE 22-3-18	<b>CONDITIONAL TEST</b>	Determination of Cu <sup>2+</sup> (using standard hypo solution).
<b>UNIT/PART IV</b>	<b>TOPIC: Alkyl and Aryl Halides</b>	
	<b>THEORY</b>	<b>PRACTICAL</b>
DAY1 DATE 26-3-18	.....	Determination of Cu <sup>2+</sup> (using standard hypo solution).
DAY2 DATE 28-3-18	Nomenclature and classes of alkyl halides, methods of formation	Determination of Cu <sup>2+</sup> (using standard hypo solution).
DAY3 DATE 29-3-18	<b>HOLIDAY</b>	<b>HOLIDAY</b>
DAY4 DATE 2-4-18	.....	Melting point determination
DAY5 DATE 4-4-18	chemical reactions with energy profile diagrams, SN <sub>2</sub> and SN <sub>1</sub> of aryl halides	Melting point determination
DAY6 DATE 5-4-18		revision of Physical Experiments
DAY7 DATE 9-4-18	.....	To determine the specific refractivity
DAY8 DATE 11-4-18	Mechanisms and stereochemistry of nucleophilic substitution reactions of alkyl halides and aryl halide	test of Physical Experiments
DAY9 DATE 12-4-18	Mechanisms and stereochemistry of nucleophilic substitution reactions of alkyl halides and aryl halide	To determine the specific refractivity
DAY10 DATE 16-4-18	.....	To determine the specific refractivity
DAY11 DATE 18-4-18	<b>HOLIDAY</b>	<b>HOLIDAY</b>
DAY12 DATE 19-4-18	Relative reactivities of alkyl halides vs allyl, vinyl and aryl halides	To determine the specific refractivity