#### B.L.D.E Association's S.B. Arts and K.C.P. Science College Bijapur P.G. Dept of Chemistry Remedial Classes Syllabus for M.Sc. III<sup>rd</sup> Semester

#### UNIT. I. Inorganic Chemistry

Classification of organometallic compounds, the 16 and 18 electron rule, synthesis, structure and bonding in metal alkyl (Li, Mg and Al) and reactions of Grignard's reagents. Chemistry of organometallic compounds with  $\pi$  - bonding ligands: Synthesis, Structure, Spectroscopy, Reactions and bonding in metal – carbon  $\pi$  – bonded systems involving dihapto to hexahapto ligands Viz, Olefins (Zeise's salt), acetylenes, allylic moieties, butadienes, cyclobutadienes, cyclopentadienes and arenes.

# UNIT. II. Organic Chemistry

Aromatic electrophilic substitution reactions: General mechanism of electrophilic substitution in aromatic systems using examples of nitration, halogenations, sulphonation and Friedal Craft alkylation and acylation. Orientation effect of disubstitution in aromatic systems with suitable examples.

**Nucleophilic substitution at saturated carbon:** Mechanism of SN1, SN2, SNi reactions – effect of solvent, substrate and leaving group, neighboring group participation, substitution at vinylic and allylic carbon.

**Aromatic nucleophilic substitution reactions:** Substitution of hydrogen, substitution other than hydrogen, SNAR reactions, SN1, SN2 and benzyne mechanism, Bucherer reaction.

#### UNIT. III. Physical Chemistry

### Material Chemistry

Introduction: Fundamentals and importance, Metal nanoclusters, magic numbers, theoretical modeling of nano particles, Geometric structure, electronic structure, reactivity, fluctuations, magnetic clusters, Bulk to nano transitions. Semiconducting nanoparticles- optical properties, photofragmentation, coulombic explosion. Carbon nano particles: Introduction, Carbon molecules, Nature of the carbon bond, New carbon structures. Carbon clusters: small carbon clusters, C60; Discovery, structure, crystal, alkali doping, super conductivity, Fullerens, other Bulkyballs. Carbon nano-tubes: Fabrication, structure, electrical properties, vibrational properties, mechanical properties, application of nano materials.

B.L.D.E Association's

## S.B. Arts and K.C.P. Science College Bijapur

P.G. Dept of Chemistry Remedial Classes-2019-20

#### NOTICE

The PG Department of chemistry is conducting Remedial classes for M.Sc III<sup>rd</sup> Semester Students "on 08.08.2019, 07.09.2019, 09.10.2019, 22.11.2019 and 03.12.2019. All the students are hereby informed to attend the Class.

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Principal, S. B. Arts & KCP Sc. College, Bijapur

S.B.Arts & K.C.P.Science College, Vijayapur,

Coordinator

PG Studies in Chemistry

P. G. Department of Chemistry.
SB Arts & KCP Science (Langue BIJAPUR - 586101

B.L.D.E Association's

# S.B. Arts and K.C.P. Science College Bijapur

P.G. Dept of Chemistry Remedial Classes-2019-2020

Time Table

Time/day	Monday	Tuesday	Wednesday	Thursday	Friday	Satarday
11.30 to				SNU		
12.30				08.08.2019		
11.30 to						SDL
12.30						07.09.2019
11.30 to			PKM		MI MANA	
12.30			09.10.2019			
11.30 to		Mark Min	To tend of the last	NEW TO	SNU	
12.30					22.11.2019	
11.30 to	1 15 1126	SDL .				
12.30		03.12.2019				

Principal,
S. B. Arts & KCP Sc. College,
Bijapur

S.B.Arts & K.C.P.Science College, Vijayapur.,

P. G. Department of Ch. mistry.

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# B.L.D.E Association's S.B. Arts and K.C.P. Science College Bijapur P.G. Dept of Chemistry Student List 2019-20 Subject: Organic Chemistry REMEDIAL CLASS

S.I No	Reg.No.	Name					
1	CH182001	Aishwarya Sajjan	- Contraction of the contraction	A)	A.	<i>A</i> 88	AND IN
2 .	CH182002	Akshata Marab	AM	ADA	AM	AM	-AD
. 3	CH182004	Archana Pattar	DEP	ARD	AND	PRO	ARP.
4	CH182006	Bibizahera Bevanur	Asi	Del	De los	Asa.	Bur
5	CH182011	Meenaxi Hosamani	MEN	(Pa)	(NEW)	(P)	(181)
6	CH182017	Tabasum Badeghar	Beologh	-Badylo	-Badeghel	Badesla	Bader
7	CH182018	Tejaswini Pawar	Jeune	form.	- fuer	Forter	Free
8	CH182019	Umarani Sachin	36	134	Box	1965	BE
9	CH182021 Vijyalaxmi Meti		Parel.	Romels	Corele	Coal	Possed.
10	CH182022	Yallur Santosh	Cultanna	Carrina	Colonias		Marius

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IQAC, Co-ordinator
S.B.Arts & K.C.P.Science College,
Vijavanus

Principal,
Arts & K.C.P. Science College
BIJAPUR.