

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, Fullerenes, other Bulkyballs. Carbon nano-tubes: Fabrication, structure, electrical properties, vibrational properties, mechanical properties, application of nano materials.

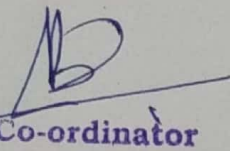
B.L.D.E Association's  
**S.B. Arts and K.C.P. Science College Bijapur**  
P.G. Dept of Chemistry  
Remedial Classes-2016-2017

NOTICE

The PG Department of chemistry is conducting Remedial classes for M.Sc III<sup>rd</sup> Semester Students on 20.08.2016, 14.09.2016, 06.10.2016, 15.11.2016 and 07.12.2016. All the students are hereby informed to attend the Class.

CS

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



**Co-ordinator**  
S.B.Arts & K.C.P.Science College,  
Vijayapur,

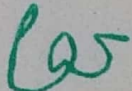
Coordinator

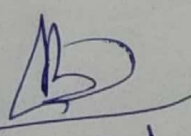
~~PG Studies in Chemistry~~  
~~Co-ordinator,~~

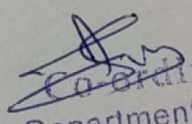
P. G. Department of Chemistry,  
SB Arts & KCP Science College  
BIJAPUR - 586101

B.L.D.E Association's  
**S.B. Arts and K.C.P. Science College Bijapur**  
 P.G. Dept of Chemistry  
 Remedial Classes-2016-2017  
 Time table

| Time/day          | Monday | Tuesday           | Wednesday         | Thursday          | Friday | Saturday          |
|-------------------|--------|-------------------|-------------------|-------------------|--------|-------------------|
| 11.30 to<br>12.30 |        |                   |                   |                   |        | SNU<br>20.08.2016 |
| 11.30 to<br>12.30 |        |                   | SDL<br>14.09.2016 |                   |        |                   |
| 11.30 to<br>12.30 |        |                   |                   | SRK<br>06.10.2016 |        |                   |
| 11.30 to<br>12.30 |        | SNU<br>15.11.2016 |                   |                   |        |                   |
| 11.30 to<br>12.30 |        |                   | SDL<br>07.12.2016 |                   |        |                   |

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

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

  
 Co-ordinator,  
 P. G. Department of Chemistry,  
 SB Arts & KCP Science College  
 BIJAPUR - 586101

B.L.D.E Association's  
S.B. Arts and K.C.P. Science College Bijapur  
P.G. Dept of Chemistry  
Student List 2016-17  
Subject: Organic Chemistry  
**REMEDIAL CLASS**

| S.I No | Reg.No.            | Name     |        |        |        |        |        |
|--------|--------------------|----------|--------|--------|--------|--------|--------|
| 1      | Abdul.Qadar Gogi   | CH152001 | Qogi   | Qogi   | Qogi   | Qogi   | Qogi   |
| 2      | Akash.S.J          | CH152002 | Akash  | Akash  | Akash  | Akash  | Akash  |
| 3      | Keerati.C.Vastrad  | CH152003 | Kerati | Kerati | Kerati | Kerati | Kerati |
| 4      | Laxmi.I.Hunnur     | CH152004 | Laxmi  | Laxmi  | Laxmi  | Laxmi  | Laxmi  |
| 5      | Laxmi.S.Saboji     | CH152005 | Laxmi  | Laxmi  | Laxmi  | Laxmi  | Laxmi  |
| 6      | Mammad Hancep.M.T  | CH152006 | Mammad | Mammad | Mammad | Mammad | Mammad |
| 7      | Mammad .Irfhan.    | CH152007 | Mammad | Mammad | Mammad | Mammad | Mammad |
| 8      | Preeti.S.Biradar   | CH152010 | P.S.B  | P.S.B  | P.S.B  | P.S.B  | P.S.B  |
| 9      | Rakesh.R.Joshi     | CH152011 | Rakesh | Rakesh | Rakesh | Rakesh | Rakesh |
| 10     | Sandhya.B.Keshetti | CH152014 | S.B.K  | S.B.K  | S.B.K  | S.B.K  | S.B.K  |

125

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

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

Co-ordinator,  
P. G. Department of Chemistry,  
SB Arts & KCP Science College  
BIJAPUR - 586101