

SRI MEENAKSHI GOVERNMENT ARTS COLLEGE FOR WOMEN(A), MADURAI-2
DEPARTMENT OF CHEMISTRY

RESOLUTION OF PG BOARD OF STUDIES MEETING ON 29th JULY 2022, FN

1. **New uniform curriculum framework** for PG Programme (as given by our institution) has been followed.
2. According to the new curriculum framework **two skill enhancement courses (SEC)** have been newly introduced.
Analysis of Soil, Food and Cosmetics practical is newly introduced as SEC I in I Semester.
Computational Chemistry Practical is newly introduced as SEC II in Semester II.
3. The practicals are conducted **semester wise**.
In **I Semester**, Inorganic Chemistry Practical and in **II Semester**, Organic Chemistry practical are offered.
In **III Semester**, Physical Chemistry Practical and in **IV Semester**, Inorganic & Organic Quantitative Analysis Practical are offered.
4. **In Semester I, Inorganic Chemistry I,**
In Unit II, Chemistry of Solid State I, Representative structures of AB, AB₂, types of compounds – rock salt, caesium chloride, wurtzite, zinc blende, rutile, fluorite, cadmium iodide. Structure of graphite and diamond are included.
Unit III Chemistry of Solid State II has been transferred from Semester IV, Selected topics in Chemistry and updated.
In Unit IV, Principles of Coordination Chemistry, Stereochemical aspects – Stereoisomerism in inorganic complexes – Isomerism arising out of ligand distribution and ligand conformation is included.
In Unit V, Chemistry of Coordination Compounds, evidences for M-L overlap. Application of ORD and CD in identification of complexes, comparison of CFT and MOT of bonding in octahedral complexes are included.
5. **In Semester I, in Physical Chemistry I, in unit I**, Postulates of quantum mechanics is included.
In Unit II, Group theory I, the following topics are shifted from Group theory II from Semester III: Reducible and irreducible representations – Symbols and rules of reducible and irreducible representations – Reduction formula – Great orthogonality theorem; Character Table, Construction of Character Table C_{2v}, C_{3v} and D_{2h}.
6. **In Semester I Molecular spectroscopy and Analytical Chemistry I,**
In Unit IV, Fragmentation patterns of heterocyclic compounds furan, pyrrole and pyridine are included.
7. **In Semester II, Inorganic Chemistry II,**
In Unit II, Catalysis in complexes is included.

In Unit III, electronic spectra of complexes (shifted from I Semester) is elaborated as follows: Spectroscopic term symbols for d^n ions – derivation of term symbols and ground state term symbols, Hund's rule, selection rules – breakdown of selection rules, spin-orbit coupling, band intensities, weak and strong field limits- correlation diagram, energy level diagrams. Orgel diagram for weak field O_h and T_d complexes. Tanabe-Sugano diagram for d^3 $[Cr(NH_3)_6]^{3+}$ complex. Charge transfer spectra.

8. **In Semester II, Physical Chemistry II, In Unit II Group theory, SALC procedure** – Evaluation of energies and Molecular orbitals of systems like ethylene and butadiene- Selection rules for vibrational IR and Raman spectra -electronic spectra of HCHO and ethylene are included.
9. **In Semester II Molecular Spectroscopy & Analytical Chemistry II, In Unit II, difficulties in recording ^{13}C NMR- Homo nuclear and heteronuclear coupling- Off Resonance decoupled spectrum identification of various types of carbon (functional groups) using ^{13}C NMR. Origin of ^{13}C satellite peaks. Attached Proton Test (APT) &Distortionless enhancement by Polarization Transfer (DEPT) spectrum (DEPT-45, DEPT-90 and DEPT-135). HOMO COSY (HOMCORR: 1H - 1H connectivity, ^{13}C - ^{13}C connectivity) HETCOR (Heteronuclear Correlation) are included.**
10. **In Semester III, Inorganic Chemistry III Unit I, Polyacids and Inorganic Polymers, silicates** - applications of Pauling's rule of electrovalence - isomorphous replacements in silicates - silanes, higher silanes, multiple bonded systems, silicon nitrides, siloxanes are included.
11. **In Semester IV, Selected topics in Chemistry, Organometallic Chemistry** is included as unit I and the contents as in TANSCHS syllabus is included. Solid state chemistry has been shifted to Inorganic Chemistry I.
12. In semester-I, Skill enhancement course (SEC-I), soil testing using free software can be included. Doctor's kit for NPK analysis can also be included

SUGGESTIONS BY BOS MEMBERS

1. The project evaluation pattern may be changed into 40 (Internal) / 60 (external) or 50 (Internal) / 50 (external).

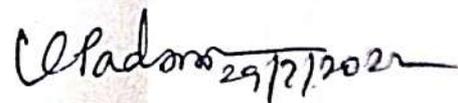
BOARD MEMBERS

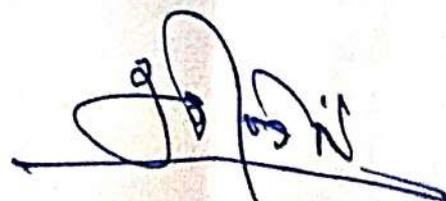
1. Dr. V. PADMINI, University Nominee,
Madurai Kamaraj University

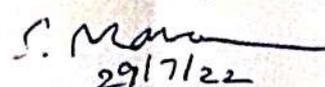
2. Dr. A. Cyril Thomas (Subject Expert),
Raja Doraisingam Govt. Arts College, Sivagangai

3. Dr. S. MANORANJITHAM, (Subject Expert),
Kamarajar Government Arts College, Surandai

SIGNATURE


29/7/2022




29/7/22

4. Dr. M. Amutha (Student Alumni),
V.V.V College, Virudhunagar

M. A.
29.7.2022

5. Mr. A. David Kamalesh Paul (Industrial expert),
Secretary, Export Promotion centre,
Tamilnadu Chamber of Commerce, Madurai

A. D.
29/07/2022

**Other Board Members: Faculty members of the Department of Chemistry,
Sri Meenakshi Government Arts College for Women, Madurai-2.**

1. Dr. J. Arul Moli, Associate Professor & Head of the Department. *Dr. J. Arul Moli*
29/7/2022
2. Dr. K. Vigneswari, Assistant Professor. *K. Vigneswari*
29/7/2022
3. Dr. C. Meenakshi, Assistant Professor *D. Meenakshi* 29/7/2022
4. Dr. B. Mariammal, Assistant Professor. *B. Mariammal*
29/7/2022
5. Dr. R. Muthuselvi, Assistant Professor. *R. Muthuselvi* 29/7/2022
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7. Mrs. D. Renuga, Assistant Professor. *D. Renuga*
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11. Dr. N. Manonmani, Assistant Professor *N. T. Manonmani*
29/07/2022
12. Dr. T. Umamathi, Assistant Professor. *T. Umamathi*
29/7/22
13. Dr. K. Anuradha, Assistant Professor *K. Anuradha*
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14. Dr. P. Shanthi, Assistant Professor *P. Shanthi*
29/7/2022
15. Dr. A. Mary Remona, Assistant Professor. *A. Mary Remona*
29/7
16. Dr. S. Senthana, Deputed Annamalai University Assistant Professor *S. Senthana*
29/7/22