

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

RESOLUTIONS OF UG BOARD OF STUDIES MEETING ON 29th JULY 2022, AN

1. **New uniform curriculum framework** for UG Programme (as given by our institution) has been followed.
2. According to the new curriculum framework **three skill enhancement courses (SEC), three ability enhancement courses and one Generic elective course** have been introduced.
3. Two skill enhancement course papers exist as such in the previous year syllabus. Only one skill enhancement course III a new course '**Applied Chemistry Practical**' is introduced in VI Semester.
4. In Semester V, **Generic elective, 'Inventions and innovations in Chemistry'** a new course paper is introduced.
5. The first year practical -1, 'Qualitative Analysis and Organic preparation' and 2nd year practical, 'Volumetric Analysis and Organic Estimation' are conducted in **non-semester pattern. The 3rd year practical is split into two and conducted semester wise.**

In Semester V, Gravimetric and Organic Analysis Practical is included.
In Semester VI, Physical Chemistry Practical is introduced.

6. According to the new curriculum framework, **all the theory courses papers are changed to semester wise. The contents were updated and blended with TANSCHIE syllabus, and the changes are made in the following papers. Applications related to the unit are highlighted.**
Environmental awareness and assessment is included, wherever needed.
7. **In Semester I, General Chemistry I,**
Unit I, 'Classification and Nomenclature of organic compounds' is separately offered as a unit and the contents are expanded.
In Unit II, Unit III and Unit IV the contents are expanded.
Unit – V: Atomic Structure, the content from General Chemistry-4 is shifted to General Chemistry I.
8. **In Semester II, General Chemistry II,**
In Unit I, Aliphatic Compounds the contents are elaborated. Radical mechanism for substitution reaction, application in the synthesis of following molecules - Dibenzyl (from toluene), cis and trans 2-butene are included.
In Unit III, Metallurgy is included. In Unit III, **Biological Importance of s-block Elements** in human is included.
9. Some Contents from Unit 1 of C62, Organic Chemistry paper is shifted to Semester II, **General Chemistry III.**
Unit I Aromaticity and Aromatic Compounds is separately included.
Unit – II: p-Block Elements – Boron Family

Unit – III: p-Block Elements –Carbon Family are separately offered.

Unit IV, Applications of Colloids is elaborated.

Unit-V 'Nanomaterials and Liquid crystals ' is separately offered. Nanomaterials is newly introduced. Applications of nanomaterials and liquid crystals are elaborated.

10. **In Semester III, in General Chemistry IV,**

In Unit I, Haloalkanes is newly introduced.

In Unit II, Alcohols, Phenols and Ethers, additive to raise octane number) and 1-methyl-1-cyclohexanol and uses of phenols are included.

In Unit III, Principles of Volumetric Analysis, Environmental Assessment: Use of titration involving EDTA in assessing water pollution is included.

In Unit V, in p-Block Elements, Nitrogen family, chemistry of important compounds of Nitrogen and Phosphorous are included. Uses of Nitrogen and environmental Awareness: Nitrogen oxides as pollutants - Acid Rain are included.

11. **In Semester IV, In Physical and Inorganic Chemistry,**

Unit I, Unit II and Unit V the contents are expanded and changed. Applications are highlighted in Unit III and Unit IV.

12. **In Semester V, in the course paper Organic Chemistry I,**

In the Unit I, Stereochemistry, the Significance of Stereochemistry in drugs: Thalidomide disaster in 1957- Need for strict testing of optical isomer and its drug action and Conformational Analysis are included.

Unit II Aldehydes and ketones has been shifted from General Chemistry 4, and offered in Organic Chemistry I.

Unit III, Carboxylic acids contents have been changed and expanded. Esterification mechanism is included.

13. **In Semester V, In Physical Chemistry I,**

In the Unit V Magnetic properties: Types of magnetic behaviour, dia, para, ferro, antiferro and ferrimagnetism – Hysteresis – Solid state lasers – inorganic phosphors – ferrites. Catalysis: Definition – characteristics – Theories of catalysis – promoters and poisons – enzyme catalysis – acid-base catalysis – auto catalysis with suitable examples are included.

14. **In Semester V, Elective course Analytical Techniques is changed as core course paper,**

Unit I is expanded, and paper chromatography is shifted from Unit II to Unit I.

In Unit II, in HPLC and Gas chromatography the contents are expanded.

15. **In Semester V in Elective Course-I, Food Chemistry, instead of food poison Unit IV, Food preservation is included.**

In Unit V, whey protein topic is included.

16. **In Semester VI, in Inorganic Chemistry I,**

In Unit II, General Characteristics of halogens, peculiarity of fluorine, noble gases and compounds of xenon are included.

In Unit III, Application of interstitial compounds and uses of transition metal and alloys are included.

In Unit IV, and Unit V the contents are merged and reshuffled.

In Semester VI,

Rearrangements and Heterocyclic compounds are placed in separate units as Unit I and Unit II respectively and expanded.

In Unit V, Tautomerism & Polymers, Eco Friendly Plastics: Green synthesis of a compostable and widely applicable plastic Polylactic acid made from corn is included.

18. In Semester VI, Physical Chemistry II,

In Unit II, Acid Base Chemistry: Theories of acids and bases – Arrhenius, Bronsted-Lowry theory proton donor - acceptor system, Lewis-electron dot system and HSAB principle is included.

19. In Semester VI, Applied Chemistry is included as Discipline Specific Elective Course. This Applied Chemistry non-semester course paper is shifted from Semester III & IV, and the contents are changed as follows:

Unit III, Water Technology is included.

In Unit V, corrosion and protective coatings is included.

For alternate elective course for Applied Chemistry, Biochemistry is included.

20. In semester VI, Discipline Specific Elective Course, Pharmaceutical Chemistry contents are totally taken from TANSCHÉ syllabus.

Alternate Discipline Specific Elective Course for Pharmaceutical chemistry is Agricultural chemistry.

21. In semester III, non-major elective, Chemistry in life,

Unit IV is Indian medicinal plants is newly introduced.

Unit V, Forensic chemistry and toxicology is newly introduced.

22. In Semester IV, Non-Major elective, Day to day Chemistry, the contents are changed, and new units are introduced.

Unit I, Soaps, detergents and shampoo is newly introduced.

Unit II, Dairy products is newly introduced.

Unit IV, Energy storage devices is newly introduced.

Unit V, Chemical Industries is newly introduced.

23. In semester-VI, Organic chemistry –II, content on bio-degradable plastics can be elaborated with special emphasis on thermoplastic starch materials

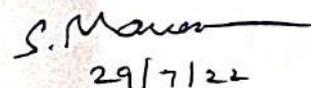
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