

DEPARTMENT OF CHEMISTRY

R-23 Regulations

Minutes of Board of Studies dated 19-09-2023

The Board of Studies (BOS) of Chemistry Departments is held on 19-09-2023 at 2:00 PM in R&D Division (Dean Chamber) of the College in online mode (Teams App) to discuss the proposed agenda and to adopt resolutions. The following members attended the meeting.

Point-1: Dr. P. V. S. Machiraju, Professor of Chemistry, Dean-R&D welcomed all the members to the BOS meeting

Point 2: The information regarding the proposed syllabi of the subjects Engineering Chemistry and Chemistry Theory and Laboratory has been shared to the members of BOS for approval and Ratification.

Point 3: The proposed syllabi of both Engineering Chemistry and Chemistry along with their respective Laboratory experimental details were discussed at length and the suggestions provided by the external BOS members Dr. S. Satyaveni, Dr. G. Ranga Rao, Prof. B. Venkateswara Rao in Engineering Chemistry are given below.

I. Engineering Chemistry (CE, Mech Branches):

(a) Prof. G. Ranga rao, IIT Madras suggested to include the *sub-heading as Removal of Hardness of water before Ion-Exchange Process in UNIT- 1 Water Technology*. He also suggested to *include few more Text books for references*

- The above suggestions made by external BOS members are incorporated in the syllabus of Engineering Chemistry and the syllabus has been approved and ratified.
- The changes in experiments with Sl. Nos: 2, 3, 6, 8, 11 and 12 in Laboratory syllabus which is shown below are also approved by the BOS members and hence ratified.
- BOS Members expressed their consent to Conduct any 10 Experiments out of 12 in the laboratory.

ENGINEERING CHEMISTRY LABORATORY

In laboratory syllabus 12 experiments were prescribed. Experiments with serial nos: 1,4,5,7,9 and 10 are kept as it is. But In case of the prescribed experiments with serial nos: 2,3,6,8,11 and 12 are changed as follows

Experiment No.2: *Estimation of Dissolved Oxygen by Winkler's method* changed as **“Estimation of KMnO₄ by using standard oxalic acid solution”**

Experiment No.3: *Determination of Strength of an acid in Pb-Acid battery* changed as **“Conductometric titration of strong acid vs strong base”**

Experiment No.6: *Estimation of Calcium in port land Cement* changed as **“Preparation of Urea-formaldehyde resin”**

Experiment No.8: *Adsorption of acetic acid by charcoal* changed as **“Estimation of Ferrous Iron by Dichrometry”**

Experiment No.11: *Determination of Viscosity of lubricating oil by Redwood Viscometer* changed as **“Determination of Total alkalinity of given sample of water”**

Experiment No.12: *Determination of Calorific value of gases by Junker's gas Calorimeter* changed as **“Determination of vitamin-C”**

II. Chemistry common for EEE,ECE, CSE (CS), IT, CSE, CSE (AI), CSE (DS), CSE (AI&ML) Branches:

a) The University Nominee Dr. S. Satyaveni suggested to drop the topic “Electrochemical Sensors and Amperometric Sensors only with examples from UNIT-III.

b) The external members also suggested to *include few more Text books for references*

The above suggestions made by external BOS members are incorporated in the syllabus of Chemistry and the syllabus has been approved and ratified.

.BOS Members expressed their consent to Conduction any 10 Experiments out of 12 in the laboratory

The changes in experiments with Sl. Nos: 1,4,5,6 and 8 in Laboratory syllabus which is shown below are also approved by the BOS members and hence ratified.

BOS Members expressed their consent to conduct any 10 Experiments out of 12 in the laboratory

CHEMISTRY LABORATORY

In laboratory syllabus 12 experiments were prescribed. Experiments with serial no's: 2,3,7,9,10,11 and 12 are kept as it is. In case of experiments with serial nos:1,4,5,6 and 8 are changed as follows

ExperimentNo.1: *Measurement of 10Dq by spectrophotometric method* changed as “**Determination of Hardness of a groundwater sample**”.

ExperimentNo.4: *Determination of cell constant and conductance of solutions* changed as “**Preparation of Nanoparticles. (Cu/Zn)**”

ExperimentNo.5: *Potentiometry determination of redox potentials and emf's* changed as “**Determination of Vitamin-C**”

ExperimentNo.6:*Determination of Strength of an acid in Pb-Acid battery* changed as “**Estimation of KMnO₄ by using standard oxalic acid solution**”

ExperimentNo.8: *Verify Lambert-Beer's law* changed as “**Determination of Total alkalinity of given sample of water**”

Point 4: The proposed Course structure, course objectives, Course Outcomes and CO-PO mapping for the proposed subjects of Engineering Chemistry and Chemistry along with Laboratory syllabus are approved and ratified.

Point-5: The proposed model papers for internal and external examinations of both theory and laboratory courses of Engineering Chemistry and Chemistry and Practicals of both subjects are approved and ratified

Point-6: The textbooks and reference books proposed with inclusion of some more text books for reference are approved and ratified.

Point-7: Under any other item: No discussion has been made

Signature of BOS Members

Dr. S.Satyaveni
University Nominee

Dr. G.Ranga Rao
Subject Expert-1

Dr. B. Venkateswara Rao
Subject Expert -2

Dr. P.V.S.Machiraju
BOS- Chairman

P. Satyanarayana
Member

R. Amulyam
Member

A. Jyotsna
Member

R. Veera Babu
Member

