

**DEPARTMENT OF CHEMISTRY
REPORT OF FIRST TERM 2018-19**

Name of Staff:

Senior College:

1. Dr.I.A.Mendes, Head of Dept.
2. Dr.P.Shetty
3. Ms.R.Ferns
4. Dr.S.Murthy
5. Ms.T.Asha
6. Ms. L.Jeysus
7. Sr. R.Khandagale

Junior College:

1. Ms. B. Gonsalves
2. Ms. S.Rathod
3. Ms. B.Shaikh

A] TEACHING AND LEARNING:

I] Teaching Aids used: In order to make the study of chemistry simple and interesting, a variety of teaching aids are used by the staff. These include:

- i. **Ball and stick molecular models, solid state models, chemistry molecular model kit:** Molecular models give a 3-D view of the molecule and thus help students to visualize the molecule and understand the molecular structure better. These were used for topics like stereochemistry, hybridization, solid state chemistry, molecular symmetry, co-ordination chemistry etc.-Dr.S.Murthy, Ms.R.Ferns, Ms. L.Jeysus.
- ii. **Practical demonstrations:**
 - a) Reaction of metals with ammonia to yield blue colour irrespective of their nature- Ms. T.Asha for the TYBSc students.
 - b) Turbidimetric Titration- Ms. T.Asha for the TYBSc students.
- iii. **Use of PowerPoint presentations by staff:**
 - a) PPT on 'Optical Activity' for F.Y.B.Sc. students- Ms. L.Jeysus
 - b) PPT on 'Classical methods of Analysis' for S.Y.B.Sc. students - Sr. R.Khandagale.
 - c) PPT on 'Natural Dyes', 'Types of Fiber' and 'Binding forces of dye and fiber.' for T.Y.B.Sc. class-Ms.L.Jeysus
 - d) Video shown on 'Spectroscopy' for the T.Y.B.Sc. students- Sr. R.Khandagale
 - e) Video shown on 'Fate of Excited molecules' for T.Y.B.Sc. students- Ms. L.Jeysus
 - f) PPT on HPTLC for the TYBSc students-Dr.P.Shetty

- iv. **Creative activities used for teaching chemistry:**
- The TYBSc students were made in-charge of the Chemistry Board which was revised every fortnight.
 - The TYBSc students also conducted an online Chem Quiz for the FYBSc and SYBSc students.
 - A session with Dr. Meeta Saxena for the TYBSc students on Spectroscopy organized by Ms. T Asha.
 - Potentiometer, conductometer were taken to class for better understanding of topics- Sr. R.Khandagale.
- v. **Other teaching strategies**
- A] Worksheets were provided to students on topics like:**
- Numericals for T.Y.B.Sc. students – Sr. R.Khandagale.
 - IUPAC nomenclature for F.Y.B.Sc. students- Ms.L.Jeysus.
 - IUPAC nomenclature for T.Y.B.Sc. students- Ms.L.Jeysus
 - Information sheets on ‘Tools of Analytical Chemistry’ for SYBSc students- Dr.I.Mendes, Dr.P.Shetty, Dr.S.Murthy, Ms.T.Asha.

III] Teaching learning in the laboratory:

- Separation of commercially available food colours for TYBSc students by Ms. L.Jeysus.
- Project on dyeing of fabric using various methods of application for TYBSc students by Ms. L.Jeysus and Ms. R.Ferns.
- Green Chemistry Experiments for SYBSc students by Dr.I.A.Mendes, Dr.P.Shetty, Dr.S. Murthy, Ms.T. Asha.
- Reaction of Copper and NaOH for SYBSc students by Dr.I.A.Mendes, Dr.P.Shetty, Dr.S. Murthy and Ms.T. Asha.
- Hardness of water was determined of water samples from different sources- Sr. R. Khandagale.
- Determination of aspirin content in tablets -Dr.P.Shetty

III] Teaching chemistry- Beyond the classroom: In working towards the college mission of providing holistic growth to students, the chemistry department organises a variety of activities for the students. These activities aim at exposing students to frontier areas of chemistry beyond the syllabus.

i) Invited lectures:

- A talk on ‘Food Adulteration and Detection’ in collaboration with IWSA by Dr. Ajit Datar organized by Dr.S.Murthy and Dr.I.Mendes on 4th August 2018.
- A talk on ‘Women: A Key to Family’s Health’ by Dr. Mukesh Gupta organized by Dr. P.Shetty on 25th August 2018.
- A one day workshop on ‘Laboratory Safety’ organized by Dr. S.Murthy and Dr. I.A. Mendes conducted by ICT held on 1st September 2019.

ii) Literature surveys/ research work under EXSP program-EXSP-Research Guide for students Ms. Fleme Rodrigues and Ms. Crissan Miranda -Dr.P.Shetty

a) Literature surveys: nil

b)Research projects: Guided two M.Sc students for their Sem IV project work-Dr.P.Shetty:

- Ms.Chayanika Bharadwaj-Invitro antioxidant and radical scavenging activity of alternantheratenella and Leucas indicial.
- Ms. Aaisha Qureshi- Estimation of Vitamin C in different fruits by titrimetric method-A comparative study.

iii) Chemistry Club: Ms. R.Khandagale and Ms. L.Jeysuswere the co-coordinators of the club for 2018-19. Activities organized in the College included:

a)The TYBSc students were made in-charge of the Chemistry Board which would be changed every fortnight.

b)The TYBSc students also conducted an online Chem Quiz for the FYBSc and SYBSc students.

d)Students from FYBSc participated in Poster making inter-collegiate competition held in Maharashtra College on 4th September 2018.

e) Students from SYBSc participated in Power-point Presentation inter-collegiate competition held in Maharashtra College on 6th September 2018. Ms. Aradhya and Ms. Hannah also won a consolation Prize for the same.

iv) Field trips:Nil

IV] Other activities organized by the Department:

i) Creating awareness: Nil

ii) Student development activities:

iii) Student follow up through contact group: Every student studying chemistry is assigned a contact teacher who follows up their academic progress/ problems through the year. At FY and SY level the practical teacher is the contact teacher whereas T.Y.B.Sc. students are divided into groups and assigned one staff member each as the contact teacher.

iv) Staff –student fun activities:Nil

v) Others:

SY,TY and M.Sc students participated in the 35th Aptitude Test in Chemistry held by ACT at Ruia College on 2nd September 2018.

B] STAFF ACTIVITIES:

I] Workshops, seminars, conferences, talks attended/organised in the college:

- i. A yoga demonstration by Ms. Jyoti Mantri attended by Sr. R.Khandagale and Ms.L.Jeysus on 21st June 2018

- ii. Goals Sharing meeting attended by Dr.I.Mendes, Dr.P.Shetty, Ms.R.Ferns Dr.S.Murthy, Ms.T.Asha, Ms. L.Jeysus, Sr. R.Khandagale on 29th July 2018.
- iii. Talk on “Importance of Reviewing History of Science’ by Dr.Kurush Dalal attended by .Sr. R. Khandagale on 21st July 2018.
- iv. A session conducted by ACS (Association of Christian Students) attended by Sr. R.Khandagale and Ms.L.Jeysus on 27th July 2018.
- v. Talk on ‘Food Adulteration and Detection’ in collaboration with IWSA by Dr. AjitDatar organized by Dr.S.Murthy and Dr.I.Mendes attended by Dr.I.Mendes, Dr.P.Shetty ,Ms.R.Ferns Dr.S.Murthy, Ms.T.Asha ,Ms. L.Jeysus, Sr. R.Khandagale on 4th August 2018.
- vi. A talk on ‘Women: A Key to Family’s Health’ by Dr. Mukesh Gupta organized by Dr. P.Shetty attended by Dr.I.Mendes, Dr.P.Shetty ,Ms.R.Ferns, Dr.S.Murthy, Ms.T.Asha, Ms. L.Jeysus, Sr. R.Khandagale on 25th August 2018.
- vii. A one day workshop on ‘Laboratory Safety’ organized by Dr. S. Murthy and Dr. I.A. Mendes attended by Dr.I.Mendes, Dr.P.Shetty, Ms.R.Ferns Dr.S.Murthy, Ms.T.Asha, and Ms. L.Jeysus, Sr. R.Khandagale held on 1st September 2019.
- viii. Coffee and Cake organized by SCESA to felicitate Dr.Medha Rajadhyaksha attended by Dr.P.Shetty, Ms.R.Ferns, Ms.T.Asha ,Ms. L.Jeysus, Sr.R.Khandagale on 3rd July 2018.
- ix. Prize Distribution function attended byDr. I.MendesDr.P.Shetty,Ms.R.Ferns, Dr.S.Murthy, Ms.T.Asha,Ms. L.Jeysus Sr.R.Khandagale on 4th August 2018..
- x. A talk on ‘Impact of Climate Change on future food Safety& security’ attended by Ms. T Asha and L.Jeysus on 24th August 2018.
- xi. Organised, conducted and attended second BOS meeting of Chemistry Department on 24th September 2018.
- xii. Inauguration of the Solar Power Plants attended by Dr.P.Shetty, Ms.R.Ferns, Dr.S.Murthy, Ms.T.Asha , Ms. L.Jeysus Sr.R.Khandagale on 31st August 2018.
- xiii.** Presentation on ‘OSM marking, Mumbai University Newer Perspective and Reforms delivered by Dr. I.A. Mendes on 8th October 2018.
- xiv. Workshop on Strategic Planning attended by Dr. I.Mendes,Dr.P.Shetty,Ms.R.Ferns, Dr.S.Murthy, Ms.T.Asha ,Ms. L.JeysusSr.R.Khandagale on 13th October 2018.
- xv. Session on ‘Sexual Harassment in Public and Workplace’ attended and helped in organizing by Ms. T.Asha on 16th October 2018.

II] Workshops seminars, conferences, talks,etc.attended outside the college:

- i. Attended T.Y.B.Sc. workshop for revised syllabus at Bhavans Hazarimal Somani College-Ms.T.Asha and Sr.R Khandagale on 24th July 2018.
- ii. Attended T.Y.B.Sc Revised syllabus workshop at Mithibai College –MsR.Ferns and Ms. L.Jeysus on 25th July 2018.
- iii. Resource person for M.Sc. Chemistry workshop for revised syllabus at CKT College, Dr.P.Shetty on 1st August 2018.
- iv. Resource person for TYBSc. Chemistry workshop for revised syllabus at :
 - a) Jai Hind College on 24th July 2018.
 - b) Bhavans College on 27th July 2018
 - c) SPK Sawantwadi College on 6th August 2018.
- v. Attended M.Sc. Chemistry workshop for revised syllabus at CKT College, Dr.P.Shetty, Ms. S. Nakhwa on 1st August 2018.

- vi. Attended M.Sc. Sem III and IV syllabus committee meeting at VES College on 21st July 2018-Dr.P.Shetty.

III] Contribution to Department and College administration/activities:

i) Dr. I.A.Mendes:

- a) Controller of Examination, Sophia College (Autonomous)
- b) Head of Department.
- c) Chairman of BOS-Chemistry Sophia College (Autonomous)

ii) Dr. P.Shetty:

- a) Science stores In-charge
- b) M.Sc Part II Class In-charge
- c) Member of BOS-Chemistry Sophia College (Autonomous)
- d) TYBSc class In-charge (till August 2018).

iii) Ms.R.Ferns:

- a) F.Y.B.Sc. Class In-charge.
- b) NSS co-ordinator.
- c) Member of BOS-Chemistry Sophia College (Autonomous)
- d) M.Sc co-ordinator (till June 2018)

iv) Dr. S.Murthy:

- a) Co-ordinator- Chemistry Dept (Star College scheme)
- b) Co-ordinator, EXSP program
- c) Co-ordinator, Time Table Committee
- d) Member, Admission Committee
- e) Member of BOS-Chemistry Sophia College (Autonomous)
- f) M.Sc Part-I Class In-charge

v) Ms. T Asha:

- a) Member, Nature Club
- b) Member, Sigma Club
- c) Member, Prize Committee
- d) Member, Exam Committee
- e) Member, SAC
- f) S.Y.B.Sc. Class In-charge
- g) IQAC sub- committee for workshops
- h) Member of BOS-Chemistry Sophia College (Autonomous)

vi) Ms L.Jeysus:

- a) Co-ordinator –MSc Analytical Chemistry
- b) Chemistry Club In-charge

vii) Sr. R.Khandagale:

- a) Chemistry Club In-charge.

- b) TYBSc Class In-charge.
- c) Security -Kaleidoscope

IV] Contribution to Quality Assurance Diploma program:

Dr. P.Shetty:

Assessed QA group discussions as a part of admission process on 17th July 2018
Assessed QA food presentation on 14th August 2018
Conducted a session on spectroscopy on 2nd, 3rd and 9th August 2018
Assessed QA seminars on spectroscopy on 9th October 2018

V] Contribution to NSS activities: nil

VI] Professional development:nil

VII] Staff research: nil

VIII] Research publications:nil

IX] Examination related work

i) Dr I.A.Mendes:

- a) Chairman for M.ScSem II Practical and Theory examination.
- b) Paper Setter, Examiner and Moderator for M.Sc Semester I(Revised and Old Course) and M.Sc (by research) Examination.
- c) Examiner for MSc sem II practical examination
 - i) Sophia College on 10th July 2018.
 - ii) Ruparel College on 12th July 2018.
- d) Assessed M.Sc seminars for M.Sc Part I sem I.
- e) Examiner for SYBSc Practical Examination held at Sophia College(Autonomous) on 11th and 12th October 2018.
- f) Expert for TYBScsem V practical Examination at Sophia College (Autonomous) on 4th September 2018.
- g) Paper Setting, Preparing model Answer key, invigilation, assessment of SEE and IA papers of Sem III and sem V of Sophia College (Autonomous).

ii) Dr P.Shetty:

- a) Expert for MSc sem II practical examination on 10th and 11th July 2018.
- b) Examiner for M.Scsem IV practical Examination at Dapoli College on 28th 29th and 30th June 2018.
- c) Examiner for TYBScsem V practical Examination at Sophia College (Autonomous) on 4th September 2018.
- d) Examiner for MSc sem III practical Examination at Sophia College (Autonomous) on 31st October 2018.
- e) Examiner for SYBSc Practical Examination held at Sophia College (Autonomous) on 11th and 12th October 2018.

- f) Paper Setting, Preparing model Answer key, invigilation, assessment of SEE and IA papers of Sem III and sem V of Sophia College (Autonomous).

iii) Ms R Ferns:

- a) Laboratory Supervisor for MSc sem II practical examination on 10th and 11th July 2018.
b) Paper Setting, Preparing model Answer key, invigilation, assessment of SEE and IA papers of Sem III and sem V of Sophia College (Autonomous).
c) Examiner for TYBSc sem V practical Examination at Sophia College (Autonomous) on 4th and 5th October 2018.

iv) Dr S Murthy:

- a) Examiner for M.Sc sem I practical Examination at Khalsa GTB College on 10th and 11th July 2018
b) Expert for MSc sem III practical Examination at Sophia College (Autonomous) held on 30th October 2018.
c) Examiner for SYBSc Practical Examination held at Sophia College (Autonomous) on 9th and 10th October 2018.
d) Paper Setting, Preparing model Answer key, invigilation, assessment of SEE and IA papers of Sem III and sem V of Sophia College (Autonomous)

v) Ms T Asha:

- a) Expert for MSc sem II practical examination on 10th and 11th July 2018.
b) T.Y.B.Sc. OSM correction for paper IV Sem VI.
c) Examiner for TYBSc (Old Course) practical exam (Analytical Chemistry) at Kirti College on 25th June 2018.
d) Examiner for SYBSc Practical Examination held at Sophia College (Autonomous) on 9th and 10th October 2018.
e) Examiner for Sem V A.C. Practical exam at Sophia College (Autonomous) held on 29th September 2018.
f) Expert for TYBSc Sem V Analytical Chemistry at Sophia College (Autonomous) held on 4th and 5th October 2018.
g) Paper Setting, Preparing model Answer key, invigilation, assessment of SEE and IA papers of Sem V of Sophia College (Autonomous)

vi) Ms. L. Jeysus

- a) Expert for MSc sem II practical examination on 10th and 11th July 2018.
b) Examiner for Sem V A.C. Practical exam at Sophia College (Autonomous) held on 29th September 2018.
c) Expert for Sem V practical exam Inorganic Chemistry at Sophia College (Autonomous) on 4th and 5th October 2018.
d) Paper Setting, Preparing model Answer key, assessment of SEE and IA papers of Sem I and sem V of Sophia College (Autonomous).
e) Assessed M.Sc presentations sem IV paper III.
f) Paper Setting, assessment of TYBSc Sem V (ATKT) Applied Component (Old Course)

vii) Sr. R.Khandagale:

- a) Expert for MSc sem II practical examination on 10th and 11th July 2018.
- b) Paper Setting, Preparing model Answer key, assessment of SEE and IA papers of Sem I and sem V of Sophia College (Autonomous).
- c) Lab Supervisor for Sem V practical exam at Sophia College (Autonomous) on 4th and 5th October 2018.

IX] Consultancy/Subject related work outside the college

X] Others:

- Judge of Chem Speak and Poster Competition at SIES College in August 2018- Dr.I.A.Mendes.
- Judge of Model making and Poster Competition at Maharashtra College on 4th September 2018 - Dr.I.A.Mendes.
- Dusshera Puja for better working of instruments in the laboratory organised by Dr.I.A.Mendes for teaching and non-teaching attended by Dr.I.Mendes, Dr.P.Shetty, Ms.R.Ferns, Dr.S.Murthy, Ms.T.Asha, Ms. L.Jeysus, Sr. R.Khandagale on 17th October 2018 .



Dr. I.A. Mendes
Associate Professor
Head, Department of Chemistry
Sophia College (Autonomous)
30/11/2018

**DEPARTMENT OF CHEMISTRY
REPORT OF SECOND TERM 2018-19**

Name of Staff:

Senior College:

1. Dr.I.A.Mendes, Head of Dept.
2. Dr.P.Shetty
3. Ms.R.Ferns
4. Dr.S.Murthy
5. Ms.T.Asha
6. Ms. L.Jeysus
7. Sr. R.Khandagale

Junior College:

1. Ms. B. Gonsalves
2. Ms. S.Rathod
3. Ms. B.Shaikh

A] TEACHING AND LEARNING:

I] Teaching Aids used: In order to make the study of chemistry simple and interesting, a variety of teaching aids are used by the staff. These include:

- i) Ball and stick molecular models, solid state models, chemistry molecular model kit:** Molecular models give a 3-D view of the molecule and thus help students to visualise the molecule and understand the molecular structure better. These were used for topics like stereochemistry, polymers- Ms. L.Jeysus
- ii) Practical demonstrations: Nil**
- iii) Use of PowerPoint presentations by staff:**
 - a) Ppt presentations on security inks, hair dyes, health and environmental hazards and remediation processes for TYBSc students- Ms. L.Jeysus
 - b) Ppt presentations on relative stability of cycloalkanes for FYBSc students- Ms. L.Jeysus
 - c) Ppt presentations and videos on Chemical bond & reactivity, Redox chemistry for FYBSc students- Sr. R.Khandagale
 - d) Ppt presentations on Quantum Chemistry, Chemical Kinetics & Crystalline structure for TYBSc students- Sr. R.Khandagale
- iv) Creative activities used for teaching chemistry:**
 - a) Chem Sudoku –for FYBSc students(CMP batch)- Ms.R Ferns.
 - b) Poster Competition on ‘Tools in Analytical Chemistry’ for SYBSc students on 1st March 2019.

Other teaching strategies

A] Worksheets were provided to students on topics like:

- Chemistry of Aliphatic Hydrocarbons for F.Y.B.Sc. students- Ms. L.Jeysus.
- Molecular rearrangements for TYBSc students- Ms. L.Jeysus

- v) Teaching learning in the laboratory: Under Star College scheme**
 - a) pH of various commercially available aerated drinks and beverages were recorded by F.Y.B.Sc. students- Ms. R.Ferns, Ms. L. Jeysus and Sr.R.Khandagale.
 - b) Separation of plant pigments using paper chromatography for F.Y.B.Sc. students- Ms. R.Ferns, Ms. L. Jeysus and Sr.R.Khandagale.
 - c) Separation of a mixture of food colours using paper chromatography for F.Y.B.Sc. students- Ms. R.Ferns, Ms. L. Jeysus and Sr.R.Khandagale.

- d) Comparison of estimation of Fe^{+2} vs $\text{K}_2\text{Cr}_2\text{O}_4$ using instrumental method and titrimetry using diphenylamine indicator for SYBSc students-Ms. T.Asha and Dr.S.Murthy.
- e) pH and conductometric titration of weak acid vs strong base for SYBSc students-Dr. I.A.Mendes, Ms. T.Asha, Dr.P.Shetty and Dr.S. Murthy.
- f) Cation Exchange efficiency and capacity for TYBSc students-Ms. T.Asha.
- g) Estimation of amount of paracetamol in commercial samples of drug and determination of percentage purity for TYBSc students-Ms. L. Jeysus

II] Teaching chemistry Beyond the classroom: In working towards the College mission of providing holistic growth to students, the Chemistry Department organises a variety of activities for the students. These activities aim at exposing students to frontier areas of chemistry beyond the syllabus.

i) Invited lectures:

- a) A talk by Dr.George Abraham on ‘Careers in Chemistry’ organized by Dr.I.A.Mendes on 25th January 2019 under DBT Star College scheme.
- b) A talk by Dr.Harish Shetty on ‘Love, Life and Learning’ organized by Dr. P.Shetty on 2nd March 2019

ii) Literature surveys/ research work under EXSP program.

a) **Literature surveys:**

● **Research projects:**

- a) Two EXSP students presented a poster entitled “Antioxidant and free radical scavenging activity of *P.marsupium* and *V. vinifera*-A comparative study” in intra-collegiate research meet-‘Quest’ held on 28/2/19 at Sophia College.
- b) M.Sc student presented a paper entitled “*In-vitro* antioxidant and free radical scavenging activity of *Leucasaspera* and *A. sesisilis*” in an International Science Conference “From health to wellbeing” organised by the St. Xaviers College, Mumbai and Creighton University, Omaha, USA on 9th -11th January 2019.
- c) Two EXSP students presenting a paper entitled “Antioxidant capacity and free radical scavenging activity *P. marsupium* and *V. vinifera* by using different *in-vitro* models” in a national level conference “Biofacet” organised by the Department of Microbiology and Biotechnology, Patkar College, Goregaon, Mumbai on 15th and 16th February 2019.

iii) Chemistry Club: Sr.R.Khandagale and Ms.L.Jeysus were the co-ordinators of the club for 2018-19. Activities organized in the college includes:

- a) Intra collegiate Chem Quiz for Junior College students organized by the M.Sc-Part II students on 17th January 2018.
- b) An Essay competition on ‘My Favorite Element’ was conducted for the undergraduate students.
- c) A Treasure Hunt was organized for the Undergraduate students on 22nd February 2019.
- d) Besides these students were encouraged to participate in chemistry related activities organized by other colleges. Such as:

- i) St. Xaviers College
- ii) R.D.National College
- iii) Institute of Chemical Technology.

iv) Field trips:

- a) Industrial Visit cum excursion to Silvassa for TYBSc and M.Sc students organised by Dr.I.A.Mendes, attended by Ms.L.Jeysus and Ms. S. Nakhwa from 1st – 2nd February 2019.
- b) Industrial visit to Parle G (Khopoli) and Maganlal Chikki (Lonavala) for SYBSc students organized by Dr.I.A.Mendes, attended by Ms. T Asha and Sr. R. Khandagale on 1st February 2019.
- c) Visit to BARC (Bhabha Atomic Research Centre) for a talk on Nuclear reactors with undergraduate students organized by Dr.I.A.Mendes, accompanied by Sr. R.Khandagale on 1st March 2019.
- d) Visit to Forensic Laboratory, Kalina for an exhibition with TYBSc and MSc students organised by Dr.I.A.Mendes, accompanied by Ms. R.Ferns, Ms. L.Jeysus and Ms. S Nakhwa.

III] Other activities organized for students:

i) Creating awareness:

Screening the movie ‘Trust’ for the FYBSc students so as to make them aware of the disadvantages of social media-Sr. R. Khandagale.

ii) Student development activities:

- a) Dyeing workshop was organised for the students of T.Y.B.Sc class in collaboration with Art Department, Sophia Polytechnic on 5th March 2019. The students were introduced to the method of tie and dye followed by hands on training.
- b) Internship and Training for M.Sc Part II students at :
ACG Associated Capsules Pvt Ltd.,Kandivali.
Rashtriya Chemical and Fertilizers Ltd., Nagothane.
IPCA Laboratories, Kandivali.
Haffkine Laboratories, Parel
Athena Drugs, Ambernath.

iii) Student follow-up through contact group: Every student studying chemistry is assigned a contact teacher who follows up their academic progress/ problems through the year. At FY and SY level the practical teacher is the contact teacher whereas TYBSc students are divided into groups and assigned one staff member each as the contact teacher.

iv) Staff–student fun activities:

Chocolate making workshop for SYBSc students conducted by Dr. P.Shetty on 25th February 2019.

v) Others:

a) Felicitation of the top ranking students of TYBSc and MSc students (batch 17-18) on organised by Dr.I.A.Mendes, Ms.L.Jeysus and Dr. S Murthy on 25th January 2019.

b) Farewell Party for the TYBSc students was organized by Ms.L.Jeysus and Sr.R.Khandagale on 14th March 2019.

c) Students were encouraged to participate in the online ACT (Association of Chemistry Teachers) concept test by Dr.I.A.Mendes

B| STAFF ACTIVITIES:

I| Workshops, seminars, conferences, talks attended/organised in the college:

- i. QA diploma conferring ceremony attended by Dr. P.Shetty, Dr. S.Murthy, Ms R Ferns Ms. T. Asha, Ms. L.Jeysus and Sr. R. Khandagale on 8th December 2018.
- ii. College day function attended by Dr. I.A.Mendes, Dr. P.Shetty, Dr. S.Murthy, Ms R Ferns, Ms. T. Asha, Ms.L.Jeysus and Sr. R. Khandagale on 12th December 2018; compared by Ms. T Asha.
- iii. Talk by Sr. Babra Dawson, Head general council of the Sacred Heart, Sophia College attended By Dr. I.A.Mendes on 13th December 2018.
- iv. Christmas Wishing on 22nd December 2019 attended by Dr. I.A.Mendes, Dr. S.Murthy, Ms R Ferns, Ms. T. Asha, Ms.L.Jeysus and Sr. R. Khandagale
- v. College Sports Day attended by Dr.P.Shetty, Dr. S.Murthy, Ms. T. Asha, Ms. L.Jeysus and Sr. R. Khandagale on 23rd of January 2019.
- vi. Star College meeting with Dr.R. Unnikrishnan organised by Dr. S. Murthy attended by Dr. P.Shetty, Dr. S.Murthy, Ms R Ferns Ms. T. Asha, Ms. L.Jeysus and Sr. R. Khandagale on 21st January 2019.
- vii. A talk by Dr.George Abraham on 'Careers in Chemistry' organized by Dr.I.A.Mendes attended by Dr. I.A.Mendes, Dr. P.Shetty, Dr. S.Murthy, Ms R Ferns Ms. T. Asha, Ms. L.Jeysus and Sr. R. Khandagale on 25th January 2019.
- viii. IQAC workshop on 'New Changes in PBAS and MOOC's attended by Dr. P.Shetty, Ms. T Asha, Ms. R Ferns. Ms. T.Asha also helped in organizing on 25th January 2019.
- ix. Degree conferring ceremony attended by Dr. I.A.Mendes, Dr. P.Shetty, Dr. S.Murthy, Ms R Ferns Ms. T. Asha, Ms. L.Jeysus and Sr. R. Khandagale on 31st January 2018.
- x. EXSP Prize distribution ceremony organised by Dr. S. Murthy attended by Dr. S.Murthy, Dr. P.Shetty Ms. T.Asha, Sr. R.Khandagale on 5th February 2019.
- xi. First Academic Council Meeting attended by Dr. I.A.Mendes on 22nd February 2019.
- xii. A talk on 'Using Chlamydomonas as a working model' attended by Dr. P.Shetty on 28th February 2019
- xiii. A talk on 'Cancer awareness: causes and prevention' by Dr.Ian Pinto attended by Dr. P.Shetty on 22nd February 2019.
- xiv. A talk by Dr.Harish Shetty on 'Love, Life, Learning' organized by Dr. P.Shetty attended by Dr. I.A.Mendes, Dr. P.Shetty, Dr. S.Murthy, Ms. T. Asha, and Sr. R. Khandagale on 2nd March 2019.
- xv. Farewell Party for the TYBSc students was organized by Ms.L.Jeysus and Sr.R.Khandagale attended by Dr. I.A.Mendes, Dr. P.Shetty, Dr. S.Murthy, Ms R Ferns Ms. T. Asha, Ms. L.Jeysus and Sr. R. Khandagale on 14th March 2019.
- xvi. Conducted second BOS meeting of Chemistry Department on 19th March 2019 attended by Dr. I.A.Mendes, Dr. P.Shetty, Dr. S.Murthy, Ms R Ferns, Ms. T. Asha, Ms. L.Jeysus and Sr. R. Khandagale.

- xvii. A Nature club trek to Sandhan Valley attended by Ms. T Asha on 15th -16th December 2018.
- xviii. Second Academic Council Meeting attended by Dr. I.A.Mendes on 22nd April 2019.
- xix. Attended and Participated in the NSS camp-Ms. R.Ferns.
- xx. EXSP presentations attended by all staff members.
- xxi. Science Day exhibition attended by Dr. S.Murthy, Ms R Ferns Ms. T. Asha, Ms. L.Jeysus on 28th February 2018.

III Workshops seminars, conferences, talks attended outside the college:

- i. National Seminar on ‘Communicating Recent Development in Science 2019’ at Institute of Science attended by Ms. T.Asha on 27th and 28th February 2019.
- ii. ‘Biosorption- A solution to laboratory generated heavy metal waste’ Paper published in journal ‘Naveen Shodh Sansar Volume I, April 2018, (International Multidisciplinary Referred Journal) by Ms. R Ferns.
- iii. Workshop on ‘Maintenance of Laboratory Instruments’ at K.J.Somaiya College (Autonomous) attended by laboratory staff Mr. Ganesh Gurav from 13th -16th February 2019.

III Contribution to Department and College administration/activities :

i) Dr I.A.Mendes:

- a) Controller of Examination, Sophia College (Autonomous)
- b) Head of Department.
- c) Helped in the stage arrangements for College Degree Conferring Ceremony 2017-18.
- d) Chairman of BOS Chemistry Department-Sophia College (Autonomous)

ii) Dr P Shetty

- a) Science stores in-charge.
- b) M.Sc Part-II In-charge
- c) Member of BOS Chemistry Department-Sophia College (Autonomous)

iii) Ms R Ferns

- a) NSS co-ordinator.
- b) Registration team- College Degree Conferring ceremony 2017-18.
- c) FYBSc-Class In-charge.
- d) Member of BOS Chemistry Department-Sophia College (Autonomous)

iv) Dr S Murthy:

- a) Co-ordinator DBT-Star College scheme-Chemistry Dept.
- b) Co-ordinator College EXSP program
- c) Co-ordinator, College, Time Table Committee
- d) Member, College Admission Committee
- e) Registration team- College Degree Conferring ceremony 2017-18
- f) M.Sc Part-I In-charge

g) Member of BOS Chemistry Department-Sophia College (Autonomous)

iv) Ms T Asha:

a) Member, Nature Club

b) Member, Sigma Club

c) Member, Exam Committee

d) Member, Staff Activity Committee

f) S.Y.B.Sc. Class In-charge

g) IQAC sub- committee for workshops

h) Registration team- College Degree Conferring ceremony 2017-18

i) Member of BOS Chemistry Department-Sophia College (Autonomous)

vi) Ms. L Jeysus:

a) M.Sc Co-ordinator

b) Chemistry Club In-charge

d) Co-opted member of BOS Chemistry Department-Sophia College (Autonomous)

vii) Sr. R.Khandagale

a) Chemistry Club In-charge

b) TYBSc class In-charge

c) Co-opted member of BOS Chemistry Department-Sophia College (Autonomous)

d) Stage Committee- College Degree Conferring ceremony 2016-17

e) Hostel Warden

IV] Contribution to Quality Assurance Diploma program: Nil

V] Contribution to NSS activities: Nil

VI] Professional development: nil

VII] Staff research:

a) Two EXSP students represented the College at Avishkar 2019 by presenting a poster on “Antioxidant capacity and total phenolic content of *Pterocarpus marsupium* and *Vitis vinifera*.”

b) Two EXSP students presenting a poster entitled “Antioxidant and free radical scavenging activity of *P.marsupium* and *V. vinifera*-A comparative study” in intra-collegiate research meet-‘Quest’ held on 28th February 2019 at Sophia College.

c) M.Sc student presented a paper entitled “*In-vitro* antioxidant and free radical scavenging activity of *Leucasaspera* and *A. sesislis*” in an International science Conference “From health to wellbeing” organised by the St. Xaviers College, Mumbai and Creighton University, Omaha, USA on 9th -11th January 2019.

d) Two EXSP students presenting a paper entitled “Antioxidant capacity and free radical “Biofacet scavenging activity *P. marsupium* and *V. vinifera* by using different *in-vitro* models” in a national level conference” organised by the department of Microbiology and Biotechnology, Patkar College, Goregoan, Mumbai on 15th and 16th February 2019.

VIII] Research publications:

- a) Research paper entitled “*In-vitro* antioxidant and free radical scavenging activity of *Alternanthera tenella* and *Leucas indica* was published on 18th of April 2019, Volume 6, Issue 4 in International Journal of Emerging Technologies and Innovative Research, ISSN, UGC approved having 5.87 impact factor by Google scholar.
- b) Research paper entitled “Antioxidant capacity and free radical scavenging activity *P. marsupium* and *V. vinifera* by using different *in-vitro* models” in International Journal of Emerging Technologies and Innovative Research, ISSN, UGC approved and 5.87 impact factor by Google scholar.

IX] Exam related work:

i) Dr I.A Mendes:

- Chairman for M.Sc Sem II Practical and Theory examination (Mumbai University).
- Paper Setter, Examiner and Moderator for M.Sc Semester II Examination.
- Conducted M.Sc Part I practical meeting at examination House, Kalina on 14th January 2019.
- Examiner for M.Sc Sem II Practical Examination held at Dynsadhna College on 18th January 2019.
- Examiner for M.Sc Sem II Practical Examination held at Jai Hind College (Autonomous) on 23rd April 2019.
- Laboratory Supervisor for TYBSc Sem VI Practical Examination on 8th and 9th March 2019.
- Examiner for SYBSc Practical Examination held at Sophia College (Autonomous) on 15th and 16th March 2019.
- Paper Setting, Preparing model Answer key, assessment of SEE and IA papers of Sem IV and sem VI of Sophia College (Autonomous).
- Assessed M.Sc presentations sem IV paper II.

ii) Dr P Shetty:

- Expert for TYBSc Sem VI Practical examination on 8th and 9th March 2019.
- Examiner for M.Sc Sem IV Practical examination on 27th March 2019
- Examiner for SYBSc Practical Examination held at Sophia College (Autonomous) on 12th and 13th March 2019.
- Paper Setting, Preparing model Answer key, invigilation, assessment of SEE and IA papers of Sem IV and sem VI of Sophia College (Autonomous)

iii) Ms R Ferns:

- Expert and Examiner for TYBSc Sem VI Applied Component Practical Examination on 6th March 2019.
- Lab Expert for TYBSc Sem VI practical examination on 8th and 9th March 2019.
- Lab Expert for M.Sc Sem IV practical examination on 28th March 2019.
- Laboratory Supervisor and Examiner for FYBSc Practical Examination held at Sophia College (Autonomous) on 8th -12th April 2019.
- Paper Setting, Preparing model Answer key, invigilation, assessment of SEE and IA papers of Sem IV and sem VI of Sophia College (Autonomous)
- Assessed M.Sc presentations sem IV paper IV.

iv) Dr S Murthy:

- Paper Setting, Preparing model Answer key, assessment of SEE M.Sc. Sem IV of Sophia College (Autonomous).
- Examiner for SYBSc Practical Examination held at Sophia College (Autonomous) on 15th and 16th March 2019.
- Paper Setting, Preparing model Answer key, invigilation, assessment of SEE and IA papers of Sem IV and sem VI of Sophia College (Autonomous)
- Examiner for Sem VI practical examination on 8th and 9th March 2019.
- Examiner for Sem II practical examination at Jai Hind College (Autonomous) on 24th April 2019.
- Assessed M.Sc presentations sem I paper III.
- Expert for M.Sc. Sem IV practical examination on 28th March 2019.
- Lab Supervisor for M.Sc. Sem I practical examination on 18th and 19th December 2018.

v) Ms. T Asha:

- Laboratory Supervisor Sem IV SYBSc practical exams on 12th-16th March 2019.
- Examiner for SYBSc Practical Examination held at Sophia College (Autonomous) on 12th and 13th March 2019.
- Paper Setting, Preparing model Answer key, invigilation, assessment of SEE and IA papers of Sem IV and sem VI of Sophia College (Autonomous)
- Examiner for Sem VI practical examination on 8th and 9th March 2019.
- Assessed M.Sc presentations sem II paper II.
- Expert for M.Sc. Sem IV practical examination on 27th March 2019.

vi) Ms. L. Jeysus

- Examiner for TYBSc Sem VI Applied Component Practical Examination on 6th March 2019
- M.Sc. Internal assessment Sem IV paper III.
- Lab Supervisor for M.Sc. Sem IV practical examination on 27th and 28th March 2019.
- Lab Expert for TYBSc sem VI practical Examination on 8th and 9th March 2019.
- Examiner for FYBSc Practical Examination held at Sophia College (Autonomous) on 8th-12th April 2019.
- Paper Setting, Preparing model Answer key, invigilation, assessment of SEE and IA papers of Sem II and sem VI of Sophia College (Autonomous)
- Assessed M.Sc presentations sem IV paper III.

vii) Sr. R. Khandagale

- Expert for TYBSc Sem VI practical examination on 8th and 9th March 2019.
- Expert for MSc Sem IV practical examination on 27th March 2019.
- Examiner for FYBSc Practical Examination held at Sophia College (Autonomous) on 8th-12th April 2019.
- Paper Setting, Preparing model Answer key, invigilation, assessment of SEE and IA papers of Sem II, IV and sem VI of Sophia College (Autonomous)
- Assessed M.Sc presentations sem II paper I and IV.

IX] Consultancy/Subject related work outside the college

i) Dr I.A. Mendes:

- a) Appointed as Vice Chancellors Nominee- University subject expert on screening cum evaluation committee for CAS held at Kirti College on 22nd April 2019.
- b) Appointed as External Academic Auditor of SIES College and conducted audit on 23rd April 2019.
- c) Delivered 10 lectures on Polymers and Catalysts to M.Sc Part II Analytical Chemistry students of SVKM's NMIMS-Deemed University

ii) Ms. R.Ferns

Moderator for TYBSc Paper II theory examination at Jhunjhunwala College (Autonomous) on 22nd April 2019.

iii)Dr.S.Murthy

Moderator for TYBSc Paper III theory examination at Jhunjhunwala College(Autonomous) on 22nd April 2019.

iv)Ms. T.Asha

- a) Delivered lectures on 'pH, Buffers and Enzyme kinetics' to the students of the Diploma in Clinical Analysis at Sophia College (Autonomous).
- b) Moderator for FYBSc Paper I theory examination at St. Xaviers College(Autonomous) - 15th -16th April 2019.
- c) Moderator for TYBSc Paper IV theory examination at Jhunjhunwala College (Autonomous) on 22nd April 2019.



Dr. I.A. Mendes
Associate Professor
Head, Department of Chemistry
Sophia College (Autonomous)
30/04/2019