



**SIES COLLEGE OF ARTS, SCIENCE AND COMMERCE, (AUTONOMOUS), SION (W),
MUMBAI -22**

NAAC SSR – CYCLE 4 : 2018-2023

**Metric No. 1 : 1.3.3 Percentage of Programs that have components of field projects /
research projects / internships during the last five years**

**The document contains Field Project / Research Project / Internship documents for the
Academic year 2018-2019 of the following departments.**

- **English**
- **Computer Science**
- **Biotechnology**
- **Botany**
- **ADMLT**
- **Philosophy**
- **Microbiology**

***This is to certify that the attached documents from page numbers 2 to 81 have been
verified and found to be true.***


Principal
SIES College of Arts, Science &
Commerce (Autonomous)
Sion (West), Mumbai - 400 022.



Principal

College Seal

To,
Whomsoever it may concern

11th February 2019.

Subject: Letter of Acknowledgement

Arya.S.Nair, Aparna Pitale, Pooja Nadgauda, Aditi Khandelwal, Angel Therasa and Sneha Kamalanandan, completing their final year in English Literature, from SIES Autonomous College of Arts Science And Commerce, interned with Spandana Samajik Sanstha on 8th January 2018.

As part of their assignment they carried out an awareness programme with respect to Sanitation by interviewing women about their sanitary practices during menses and talking to them regarding the safer and better options.

I am happy with their contribution.

Aspa Lekkar
स्पंदना महिला उद्योग
शॉप नं. ३८, अरेवा कॉम्प्लेक्स,
से. ८, सी.बी.डी. बेलापूर,
नवी मुंबई ४००६१४

स्पंदना महिला उद्योग
शॉप नं. ३८, अरेवा कॉम्प्लेक्स,
से. ८, सी.बी.डी. बेलापूर,
नवी मुंबई ४००६१४



17th December 2018

Whomsoever it may concern

Subject: Internship letter of experience

URJA Trust, is a catalyst organization that facilitates homeless young women in their journey to access fundamental rights, and focuses on their holistic development, enabling them to make informed choices and live their lives with dignity.

Tanisha Lele, completing her final year in English Literature, from SIES Autonomous College of Arts Science And Commerce, interned with URJA Trust from 21st November till 17th December 2018.

As part of her assigned tasks she tutored the young women at the shelter, interviewed the young women and wrote their case studies and worked on the organization's volunteer manual.

Tanisha is a dedicated and hardworking individual, who along with completing her tasks on time also got along with young women at the shelter very well. She was also a good tutor to the women who appreciated her teaching skills.

We at URJA Trust appreciate her work wish her the best in her endeavors.

Charu Chaturvedi
Resource Programme Manager
URJA Trust



Srujna

Registered Under Bombay Public Trust Act 1950; Registration No:

January 19, 19
G. Preethi
SIES College of Arts, Science and Commerce,
Jain Society, SIES Lane,
Sion West, Mumbai- 400022.

Dear Preethi,

Srujna Charitable Trust would like to acknowledge you for conducting a digital literacy workshop for the underprivileged women of Srujna Udyog centre at Vasai.

The workshop has imparted digital literacy skills to 43 lesser privileged women and we are hopeful that this workshop helps them in their journey towards empowerment.

Best Regards,



Jyotika Bhatia

Executive Trustee, Srujna



FOUNDATION

Reg- E 30172 (Mumbai)
ROG No.- CTF (E), 80g 12399(2016-17), 2016.17



Date:-07/02/2019

Certificate of Internship

is to certify that *Miss. Anjali Mishra* has completed her Internship at *Aarna Foundation* from *January, 2019* to *6th February, 2019* on project like *teaching Women who are doing Ececed course*. During this period of Volunteering they have taught *Reading, Writing, Listening and Speaking* skills in English to the *men*.

We have found her to be a self-starter who is motivated, duty bound and hard-working. She has worked sincerely on her assignments and her performance was *Extremely Good*.

We wish her best of luck for her future.

Aarna Foundation

Mrs. Shweta Saroj
Founder





GOOD SHEPHERD ENGLISH SCHOOL

FUNCTIONING UNDER BOMBAY DIOCESAN SOCIETY & MANAGED BY GOOD SHEPHERD CHURCH (CNI)
Regd. Under Societies Registration Act XXI of 1860 Regd. No. 37 of 1960 and Bombay Public Trust Act 1950 Regn. No. F-303 (Bom)

Good Shepherd Church Road, Off. Dharavi Main Road, Mumbai-400 017. Tel. : 2404 2124

Rev. P. William James
Chairman & Correspondent
☎ : 9920231661 / 9969654058

12-02-2019

To
Head of the Department of English Literature,
S.I.E.S College of Arts, Science & Commerce,
Sion, Mumbai - 400 022.

Sub :- Letter of appreciation.

This is to certify that Ms. J. Jeba Evelin of S.I.E.S College of Arts, Science & Commerce came to our School on 17th December 2018 and conducted "Awareness" programme for the girls of std. VI. They discussed various problems faced by girls in the society and family. Our students participated in the programme with great enthusiasm. The programme is very useful to our students. I wholeheartedly appreciate their efforts.

Thanking You,

Yours Sincerely,




Principal R. R. Isaac
GOOD SHEPHERD ENGLISH SCHOOL
DHARAVI, MUMBAI-17



GOOD SHEPHERD ENGLISH SCHOOL

FUNCTIONING UNDER BOMBAY DIOCESAN SOCIETY & MANAGED BY GOOD SHEPHERD CHURCH (CNI)
Regd. Under Societies Registration Act XXI of 1860 Regd. No. 37 of 1960 and Bombay Public Trust Act 1950 Regn. No. F-803 (Bom)

Good Shepherd Church Road, Off. Dharavi Main Road, Mumbai-400 017, Tel. : 2404 2124

Rev. P. William James
Chairman & Correspondent
☎: 9920231661 / 9969654058

12.02.2019

To
Head of the Department of English Literature,
S.I.E.S College of Arts, Science & Commerce,
Sion, Mumbai - 400 022.

Sub :- Letter of appreciation.

This is to certify that Ms. M. Jelita Angeline of S.I.E.S College of Arts, Science & Commerce came to our School on 17th December 2018 and conducted "Awareness" programme for the girls of std. VI. They discussed various problems faced by girls in the society and family. Our students participated in the programme with great enthusiasm. The programme is very useful to our students. I wholeheartedly appreciate their efforts.

Thanking You,

Yours Sincerely,

PRINCIPAL

Principal, R. Isaac
GOOD SHEPHERD ENGLISH SCHOOL

DHARAVI, MUMBAI-17





FOUNDATION

Reg- E 30172 (Mumbai)
HOC No. CTF (D) 808 1230(2016 17) 2016.17



Date: - 11/02/2019

Certificate of Internship

This to certify that **Mr. Sarthak Joshi** has done Internship at **Aarna Foundation** on several projects like food distribution in underprivileged area, sanitary napkin distribution under the guidance of **Mrs. Shweta Saroj**.

We have found him to be a self-starter who is motivated, duty bound and hard-working. He has worked sincerely on his assignments and his performance was **Extremely Good**.

We wish him best of luck for her future.

Aarna Foundation



Mrs. Shweta Saroj
Founder



स्व. दिना बामा पाटील प्रातष्ठान
संलग्न
सम्मिजू बचत गट मार्गदर्शन केंद्र



महिलांच्या उत्कर्षासाठी ...बचत गटाची सावली!
प्रमुख मार्गदर्शक - मा. श्री. संजय दिना पाटील (माजी खासदार)

श्रीमती. मनोरमा दिना पाटील (अध्यक्ष)

सौ. पल्लवी संजय पाटील (विश्वस्त)

To whomsoever it may concern

This is to certify that Miss Sadaf Khan has successfully completed her Internship from our organization for the period 27th October 2018 to 27th November 2018 .

During her tenure of working with us we found her conduct sincere and hardworking .

Thanking You.

Yours Sincerely,

(Pallavi Sanjay Patil)

Trustee



स्व. दिना बामा पाटील प्रतिष्ठान
संलग्न
मम्मीजू बचत गट मार्गदर्शन केंद्र



महिलांच्या उत्कर्षासाठी ...बचत गटाची सावली!
प्रमुख मार्गदर्शक - भा. श्री. संजय दिना पाटील (खासदार)

श्रीमती. मनीरमा दिना पाटील (अध्यक्ष)

सौ. पल्लवी संजय पाटील (विश्वस्त)

To whomsoever it may concern

This is to certify that Miss Sneha Shetty has successfully completed her Internship from our organization for the period 27th October 2018 to 27th November 2018 .

During her tenure of working with us we found her conduct sincere and hardworking .

Thanking You.

Yours Sincerely,

(Pallavi Sanjay Patil)

Trustee

Neelambari 501, Road no. 86
Opp. Portuguese Church
Off Gokhale Road, Dadar (W).
Mumbai 400 028, INDIA
Tel: 2430 9676 Telefax: 2431 6082
E-mail : aksharacentre@vsnl.com
Website : www.aksharacentre.org

To Whomsoever it May Concern

This is to certify that Ms. Nikshitha Raja, a student pursuing her graduation in English Literature from SIES College of Arts, Science and Commerce has volunteered with Akshara (a Non Profit organization for Women Empowerment) in the month of January 2019.

She has assisted us in documentation, ideating for our social activities and mobilizing our beneficiaries for events.

In the time period that that we at Akshara have known her, she comes across as a sincere person. She represented Akshara in M.L Dahanukar for one of our social activities called 'Yuvak Yuvati Mela' and encouraged the students in contributing towards the cause of Gender Equality.

Acknowledging her contributions for the organization, we wish her the best of luck in her future studies and career.

Sincerely,



Poornima Mandpe,
Program Officer,
Akshara Centre



Neelambari 501, Road no. 86
Opp. Portuguese Church
Off Gokhale Road, Dadar (W).
Mumbai 400 028. INDIA
Tel: 2430 9676 Telefax: 2431 6082
E-mail : aksharacentre@vsnl.com
Website : www.aksharacentre.org

To Whomsoever it May Concern


This is to certify that Ms. Oishi Basu, a student pursuing her graduation in English Literature from SIES College of Arts, Science and Commerce has volunteered with Akshara (a Non Profit organization for Women Empowerment) in the month of January 2019.

She has assisted us in documentation, ideating for our social activities and mobilizing our beneficiaries for our events.

In the time period that that we at Akshara have known her, she comes across as a sincere person. She represented Akshara in M.L Dahanukar for one of our social activities called 'Yuvak Yuvati Mela' and encouraged the students in contributing towards the cause of Gender Equality.

Acknowledging her contributions for the organization, we wish her the best of luck in her future studies and career.

Sincerely,



Poornima Mandpe,
Program Officer,
Akshara Centre





"BE HUMAN"



FOUNDATION
(Reg. - KM72 (Mumbai))

Certificate of Appreciation

This is to certify that

Priyanka Pereira

Has successfully completed
His / Her Project

ARNA FOUNDATION
Reg. No. E-3007
[Signature]
Mrs. Shweta Saroj
Founder



8th December 2018

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Salvin Sajan has volunteered with us from 12th November to 7th December 2018. During this period he has visited our head office and program sites to understand our program on gender inclusion with adolescent children who live in under privilege communities.

We wish him all the best.

In case of reference, I can be reached on 91-9819963681.

Prachi Jhunjunwala

Sr. Manager – Human Resources

MAGIC BUS FOUNDATION
CIN 2001NPL130853
Registered Office
K Textiles Building
Metra Estate
Landmark, LBS Marg
Mumbai 400 079
4131 / 6243 4848
91-22-6743 4800

Magic Bus Regional Offices India: Mumbai, Delhi, Hyderabad, Bangalore, Chennai, Kolkata
Magic Bus Centre For Learning & Development, Karjat, Maharashtra
Magic Bus Centre For Learning & Development, New York, Magic Bus Singapore, Magic Bus Germany
Magic Bus London, Magic Bus USA - New York, Magic Bus Australia, Magic Bus South Africa
www.magicbusin.com



Letter of Experience

To whomsoever it may concern,

My name is Vandita Morarka, I am the Founder & CEO of One Future Collective, a feminist youth-led non profit that is harnessing the power of compassionate youth social leadership to undertake actionable change in their micro communities towards creating systemic transformation, Our work focuses on the thematic areas of youth leadership, gender justice, mental health, legal reform, and development policy: through knowledge, action, and consulting.

Manogni Thyagaraja has been working with One Future Collective from April 2019 till date in a voluntary capacity as an Editorial Assistant with The Thought Project, our digital advocacy platform. She has written various significant articles over this time span and also engaged herself in her editorial capacity to fulfil all the work allotted to her. Some of the key tasks she has worked on till now at One Future Collective are:

- Worked on conceptualizing and executing of the Bystander Intervention campaign and the *From Me, With Love* campaign
- Wrote for The Thought Project

Her involvement in the Bystander Intervention campaign, a campaign we ran in sync with the global 16 days of activism campaign to combat and raise awareness about gender based violence is worth special mention. As a writer and editor, Manogni holds commendable calibre. I am confident she will be able to scale heights, wherever she gets in. I wish her all the very best and trust that she will do well in whatever line of work she decides to pursue ahead.

For MORARKA LEADERSHIP FOUNDATION

DIRECTOR

Vandita Morarka
Founder Director and CEO
One Future Collective

Morarka Leadership Foundation (CIN U74130MH2017NPL302599)
Reg. Office: A-603, Lakshchandi Heights, Gokuldhara, Goregaon East, Mumbai - 400075, India.
www.onefuturecollective.org info@onefuturecollective.org @onefuture_india

Aawaaz Service Society

Appreciation Letter

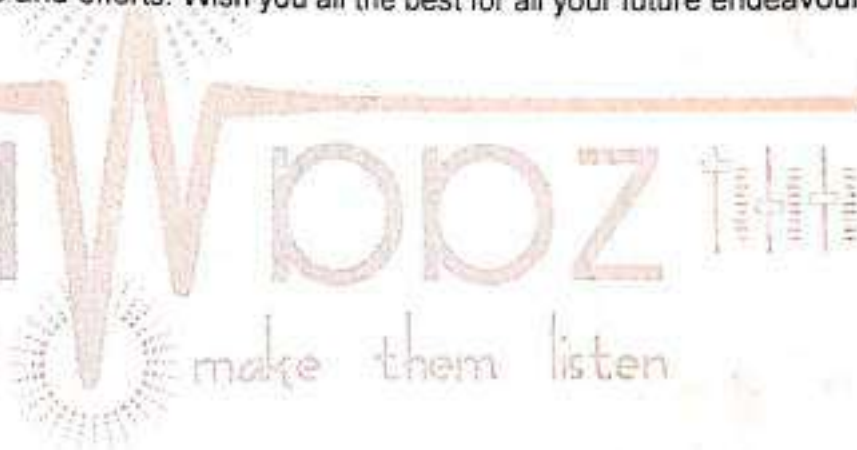
To,
Harshali Parab

Subject - Appreciation of Internship

This letter of appreciation is to applaud your dedicated efforts and commitment towards the 'Digital Literacy Program' conducted by our organization. You joined the program on 21st of January and volunteered for a period of two weeks. You met all the requirements and also the way you communicated with the women was praiseworthy. Thank you for your time and efforts. Wish you all the best for all your future endeavours.


Sameer

Regards,
Sameer Mujawar.





17th December 2018

Whomsoever it may concern

Subject: Internship letter of experience

URJA Trust, is a catalyst organization that facilitates homeless young women in their journey to access fundamental rights, and focuses on their holistic development, enabling them to make informed choices and live their lives with dignity.

Carol Coutinho, completing her final year in English Literature, from SIES Autonomous College of Arts Science And Commerce, interned with URJA Trust from 21st November till 17th December 2018.

As part of her assigned tasks she tutored the young women at the shelter, interviewed the young women and wrote their case studies and worked on the organization's HR leave policy.

Carol is a dedicated and hardworking individual, who along with completing her tasks on time also got along with young women at the shelter very well. She was also a good tutor to the women who appreciated her teaching skills.

We at URJA Trust appreciate her work wish her the best in her endeavors.

Charu Chaturvedi
Resource Programme Manager
URJA Trust





Fr. Agnel Multipurpose School

MATHEMATIC MEDIUM
AGNEL CHARITIES (AGNEL SEVA SANGH)

Sector 10 / 11, Vashi, Navi Mumbai - 400 703.
School Index No. 18.13.033

Ref No. FAMS/ JS/2018-17

Date: 06/02/2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **BAZELA HAWA** has volunteered as an intern teacher in our Bal Bhavan. She worked for seven days and she put in twelve hours of work. Her job consisted of working with small groups of boys of Std. VIII who are studying in the vernacular medium. Bazela used stories and activities to kindle the interest of the boys in English language. Her exercises in grammar proved to be useful for the boys.

We wish her all the best in her future endeavours.

VIJAYA VAITHILINGAM
Principal
Fr. Agnel Multipurpose School
Sector - 9/10A, Vashi,
Navi Mumbai - 400703.

Telephone : 4161 3000 Fax : 2766 0619; Email : agnelnm@yahoo.co.in

SKYNET SECURE

SOLUTIONS

602, Jalpa Divine, Jambli Gali, Borivali Mumbai -400092, Email : info@skynetsecure.com
Ph: 8655550168

This is to certify that Ms.Sayali Satishchandra Karve of S.I.E.S College of Arts, Science and Commerce worked as an intern as part of her M.Sc. course in Computer Science of University of Mumbai.

The particulars of internship are given below:

Internship starting date: 1st January 2019

Internship ending date: 14th March 2019

Actual number of days worked: 56 days

Tentative number of hours worked: 448 Hours

Broad area of work: Cyber Security Analyst and Network Security

A small description of work done by the intern during the period:

1. Conducted several Cyber Security Seminars in Mumbai.
2. Worked with Mumbai Cyber Cell Division for Cyber Crime Cases.
3. Provided Cyber Security training for IT Companies.
4. Penetration testing for IT Companies.
5. Audit of Companies.
6. Worked on Cyber Crime Cases with Skynet Secure.

Signature:

Name: Priya Dedhia

Designation: Co-Founder

Skynet Secure Solutions

Contact number: 8655550168

Email: priya@skynetsecure.com

(seal of the organization)

**Professional Evaluation of
intern**

Name of intern: Sayali Satishchandra Karve

College/institution: S.I.E.S College of Arts, Science & Commerce

[Note: Give a score in the 1-5 scale by putting √ in the respective cells]

Sr No.	Particular	Excellent	Very Good	Good	Moderate	Satisfactory
1	Attendance		√			
2	Punctuality		√			
3	Adaptability		√			
4	Ability to shoulder responsibility			√		
5	Ability to work in a team	√				
6	Written and oral communication skills	√				
7	Problem solving skills			√		
8	Ability to grasp new concepts	√				
9	Ability to complete task		√			
10	Quality of work Done		√			

Comments:

Signature:

Name: Priya Dedhia

Designation: Co-Founder

Solutions Contact number: 8655550168

Email: priya@skynetsecure.com

SKYNET SECURE

SOLUTIONS

602, 6th Floor, Divine Jalpa, Jambli Galli, Near Moksh Plaza, Ahead of Jain Mandir,
Borivali West, Mumbai-400092

This is to certify that Mr.Rishabh Shetty of S.I.E.S College of Arts, Science and Commerce2018-2019 worked as an intern as part of his M.Sc. course in Computer Science of University of Mumbai.

The particulars of internship are given below:

Internship starting date: 10th December, 2018

Internship ending date: 16th March 2019

Actual number of days worked: 81 days

Tentative number of hours worked: 650 Hours

Broad area of work: Cyber Security Analyst and Network Security

A small description of work done by the intern during the period:

1. Conducted several Cyber Security Seminars inMumbai.
2. Worked with Mumbai Cyber Cell Division for Cyber CrimeCases.
3. Provided Cyber Security training for ITCompanies.
4. Penetration testing for IT Companies.
5. Audit of Companies.
6. Worked on Cyber Crime Cases with Skynet Secure.

Signature:

Name: Priya Dedhia

Designation: Co-Founderr

Skynet Secure Solutions

Contact number: 8655550168

Email:priya@skynetsecure.com

(seal of theorganization)

**Professional Evaluation of
intern**

Name of intern: Rishabh Shetty

College/institution: S.I.E.S College of Arts, Science & Commerce

[Note: Give a score in the 1-5 scale by putting √ in the respective cells]

Sr No.	Particular	Excellent	Very Good	Good	Moderate	Satisfactory
1	Attendance	√				
2	Punctuality	√				
3	Adaptability		√			
4	Ability to shoulder responsibility	√				
5	Ability to work in a team	√				
6	Written and oral communication skills	√				
7	Problem solving skills		√			
8	Ability to grasp new concepts	√				
9	Ability to complete task	√				
10	Quality of work Done	√				

Comments: Very Hardworking and diligent, All the Best for the future endeavors.

Signature:

Name: Priya Dedhia

Designation: Co-Founder

Solutions Contact number: 8655550168

Email: priya@skynetsecure.com

SKYNET SECURE

SOLUTIONS

602, Jalpa Divine, Jambli Gali, Borivali Mumbai -400092, Email : info@skynetsecure.com
Ph: 8655550168

This is to certify that Mr.Tanmay Thakare of S.I.E.S College of Arts, Science and Commerce worked as an intern as part of his M.Sc. course in Computer Science of University of Mumbai.

The particulars of internship are given below:
Internship starting date: 1st January 2019
Internship ending date: 16th March 2019
Actual number of days worked: 63 days
Tentative number of hours worked: 505 Hours

Broad area of work: Cyber Security Analyst and Network Security

A small description of work done by the intern during the period:

1. Conducted several Cyber Security Seminars in Mumbai.
2. Worked with Mumbai Cyber Cell Division for Cyber Crime Cases.
3. Provided Cyber Security training for IT Companies.
4. Penetration testing for IT Companies.
5. Audit of Companies.
6. Worked on Cyber Crime Cases with Skynet Secure.

Signature:

Name: Priya Dedhia
Designation: Co-Founder
Skynet Secure Solutions
Contact number: 8655550168
Email: priya@skynetsecure.com

(seal of the organization)

Professional Evaluation of intern

Name of intern: Tanmay Thakare

College/institution: S.I.E.S College of Arts, Science & Commerce

[Note: Give a score in the 1-5 scale by putting \surd in the respective cells]

Sr No.	Particular	Excellent	Very Good	Good	Moderate	Satisfactory
1	Attendance	\surd				
2	Punctuality		\surd			
3	Adaptability	\surd				
4	Ability to shoulder responsibility		\surd			
5	Ability to work in a team	\surd				
6	Written and oral communication skills		\surd			
7	Problem solving skills		\surd			
8	Ability to grasp new concepts	\surd				
9	Ability to complete task		\surd			
10	Quality of work Done		\surd			

Comments: Hardworking and Sincere.

Signature:

Name: Priya Dedhia

Designation: Co-Founder

Solutions Contact number: 8655550168

Email: priya@skynetsecure.com

SKYNET SECURE

SOLUTIONS

602, 6th Floor, Divine Jalpa, Jambli Galli, Near Moksh Plaza, Ahead of Jain Mandir,
Borivali West, Mumbai-400092

This is to certify that Ms.Shivani Aigalikar of S.I.E.S College of Arts, Science and Commerce 2018-2019 worked as an intern as part of his M.Sc. course in Computer Science of University of Mumbai.

The particulars of internship are given below:

Internship starting date: 10th December, 2018

Internship ending date: 16th March 2019

Actual number of days worked: 76 days

Tentative number of hours worked: 610Hours

Broad area of work: Cyber Security Analyst and Network Security

A small description of work done by the intern during the period:

1. Conducted several Cyber Security Seminars in Mumbai.
2. Worked with Mumbai Cyber Cell Division for Cyber Crime Cases.
3. Provided Cyber Security training for IT Companies.
4. Audit for Companies.
5. Worked on Cyber Crime/Forensics Cases with Skynet Secure.

Signature:

Name: Priya Dedhia

Designation: Co-Founder

Skynet Secure Solutions

Contact number: 8655550168

Email: priya@skynetsecure.com

(seal of the organization)

Professional Evaluation of intern

Name of intern: Shivani Aigalika

College/institution: S.I.E.S College of Arts, Science & Commerce

[Note: Give a score in the 1-5 scale by putting √ in the respective cells]

Sr No.	Particular	Excellent	Very Good	Good	Moderate	Satisfactory
1	Attendance	√				
2	Punctuality	√				
3	Adaptability		√			
4	Ability to shoulder responsibility		√			
5	Ability to work in a team	√				
6	Written and oral communication skills	√				
7	Problem solving skills		√			
8	Ability to grasp new concepts		√			
9	Ability to complete task	√				
10	Quality of work Done	√				

Comments: Very Hardworking, Sincere and diligent, All the Best for the future endeavors.

Signature:

Name: Priya Dedhia

Designation: Co-Founder

Contact number: 865550168

Email: priya@skynetsecure.com



SIES

**College of Arts,
Science &
Commerce**

**RISE WITH EDUCATION
Sion (West), Mumbai – 400022.
(Autonomous)**

Faculty: Science

Program: M.Sc.

Subject: BIOTECHNOLOGY

Academic Year: 2018 – 2019

M.Sc Part II

**Credit Based Semester and Grading Syllabi approved
by Board of Studies in Biotechnology to be brought into
effect from June 2018.**

PRACTICALS

SIPSBTP45

100 M

Dissertation Project

SIPSBTP46

100 M

PRACTICALS BASED ON SIPSBT41, SIPSBT42, SIPSBT43 and SIPSBT44

1. Bioremediation – isolation of metal tolerant organism and study their growth characteristics and pattern
2. Composting – physical and chemical parameters
3. GMO validation (kit based / demo)
4. Nanoparticles – synthesis by chemical and biological methods; Spectroscopic analysis
5. Multiple alignment – Phylogenetic tree
6. BLAST – homologs, orthologs and paralogs
7. Motif finding
8. KEGG
9. Structure of proteins – identification of chains, helices, special groups, metal ions, etc.
10. CATH / SCOP classification of a given protein



SIES

College of Arts,
Science &
Commerce

**RISE WITH EDUCATION
(AUTONOMOUS)**

NAAC REACCREDITED - 'A' GRADE • BEST COLLEGE AWARD - UNIVERSITY OF MUMBAI

CERTIFICATE

This is to certify that **Ms. Sneha Sivakumar**, M.Sc. Part II Biotechnology, S.I.E.S College, has satisfactorily completed the dissertation work entitled **"Isolation of oil degrading micro-organisms from oil contaminated soil"** for the partial fulfillment of the Master's degree in Biotechnology as prescribed by S.I.E.S College of Arts, Science and Commerce (Autonomous) during the academic year 2018- 2019.

This dissertation represents an independent work carried out by her.

Dr. Tara Menon

Co-ordinator

Department of Biotechnology

CO-ORDINATOR

DEPARTMENT OF BIOTECHNOLOGY
SIES COLLEGE OF ARTS, SCIENCE & COMMERCE
Sion (West) Mumbai - 400 022

Dr. Uma Shankar

Principal



Signature of Examiner 12 5 APR 2019

CERTIFICATE

This is to certify that **Ms. Shrinidhi R Shetty**, M.Sc. Part II Biotechnology, S.I.E.S College, has satisfactorily completed the dissertation work entitled "**Study of Antimicrobial and Antioxidant Activity of *Berberis aristata***" for the partial fulfillment of the Master's degree in Biotechnology as prescribed by S.I.E.S College of Arts, Science and Commerce (Autonomous) during the academic year 2018- 2019.

This dissertation represents an independent work carried out by her.



Dr. Tara Menon

Co-ordinator

Department of Biotechnology

CO-ORDINATOR
DEPARTMENT OF BIOTECHNOLOGY
SIES COLLEGE OF ARTS, SCIENCE & COMMERCE
MUMBAI
24/4/2019



Dr. Uma Shankar

Principal



Signature of Examiner

25 APR 2019

**SIES COLLEGE OF ARTS SCIENCE & COMMERCE (EMPOWERED AUTONOMOUS),
SION (W), MUMBAI – 400022**

DEPARTMENT OF BOTANY

MSc PART II 2018-2023

LIST OF DISSERTATION TITLE

ACADEMIC YEAR 2018-19		
ROLL NO.	NAME OF THE STUDENT	DISSERTATION TITLE
M1819071	GAJENGI RUPA SRINIVAS RAMADEVI	“IN VITRO CALLUS INDUCTION IN <i>Bacopa monneiri</i> (BRAHMI): A MEDICINALLY IMPORTANT PLANT”
M1819072	KULKARNI REWATI VISHVAS VARSHA	“IN VITRO CALLUS INDUCTION FROM SEEDS IN CARROT (<i>Daucus carota</i> L.)”
M1819073	RAMAKRISHNAN BHAKTI RAMESH VIJAYA	“MICROPROPAGATION OF <i>Tylophora indica</i> (Burm f.) Merr.”
M1819074	SHAMA PARVEEN AMJAD ALI SAYEEDA KHATOON	“CYTOTOXIC EFFECTS OF SELECTED ANTIBIOTICS ON THE ROOT TIPS OF <i>Allium cepa</i> ”
M1819075	FITWALLA AZZAH ABDUL REHMAN AMTUL MUGHANI	“STUDY OF ECOTYPES OF <i>Ixora coccinea</i> , <i>Polyalthia longifolia</i> AND <i>Bougainvillea spectabilis</i> FROM MUMBAI CITY”
M1819076	MENDONSA LEANCE MALVIN ANNAM	“COMPARATIVE ANALYSIS OF FIVE FRESHWATER LAKES IN AND AROUND MUMBAI”
M1819077	MISAL AISHWARYA INDRANIL SHOBHA	“PHYTOREMEDIATION OF INDUSTRIAL EFFLUENT USING MICROALGAE <i>Chlorella vulgaris</i> ”
M1819078	PATIL ABHISHEK CHANDRAKANT APARNA	

**SIES COLLEGE OF ARTS SCIENCE & COMMERCE (EMPOWERED AUTONOMOUS),
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DEPARTMENT OF BOTANY

MSc PART II 2018-2023

LIST OF DISSERTATION TITLE

M1819079	SHETTY BHAVNA SHEKAR YESHWANI	“COMPARATIVE STUDY OF MANGROVE SPECIES - <i>Avicennia marina</i> AND <i>Salvadora persica</i> IN MUMBAI AND NAVI MUMBAI”
ACADEMIC YEAR 2019-20		
ROLL NO.	NAME OF THE STUDENT	DISSERTATION TITLE
M192052	B PAVITRA BALASUBRAMANI MUTHURAMAKRI SHNAVENI	“ANTIMICROBIAL ACTIVITIES OF CALLUS, SEED AND LEAF EXTRACTS OF FENUGREEK (<i>Trigonella foenum-graecum</i> L.)”
M192053	KHAN NAZMEEN MOHD ANEES SHAHATUNNISA	“CYTOTOXIC EFFECTS OF SELECTED PLANT GROWTH REGULATORS ON THE ROOT TIPS OF <i>Allium cepa</i> ”
M192054	MAHANTY PRIYANKA DANARDAN LAXMI	“MICROPROPAGATION OF THE WIRE WEED <i>Sida acuta</i> Burman. f.”
M192055	NAIR SUMITHA GOPALAKRISHNA N REMA	“EVALUATION OF ANTIBACTERIAL, ANTIOXIDANT AND SEED GERMINATION POTENTIAL OF BIOSYNTHESED SILVER NANOPARTICLES FROM <i>Ailanthus excelsa</i> Roxb.”
M192056	ZAGADE SEJAL SUNIL SNEHAL	“IN-VITRO PROPAGATION OF NODAL EXPLANT OF <i>Vitex negundo</i> (nirgundi)”
M192057	ASHWIN DINESAN KOMALAVALLY	“EFFECTS OF URBANIZATION ON MANGROVE SOIL IN NAVI MUMBAI”
M192058	GUPTA RUCHITA RAJESH CHANDA	“COMPARATIVE ANALYSIS OF WATER QUALITY IN FIVE COASTAL ZONES OF ARABIAN SEA IN THE VICINITY OF MUMBAI”

**SIES COLLEGE OF ARTS SCIENCE & COMMERCE (EMPOWERED AUTONOMOUS),
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DEPARTMENT OF BOTANY

MSc PART II 2018-2023

LIST OF DISSERTATION TITLE

M192059	KIRTHIKA SIVASUBRAMANI AN SELVAPARVATHI	“COMPARATIVE STUDY OF ROADSIDE AVENUE TREE AS BIOINDICATORS OF AIR POLLUTION IN AND AROUND MUMBAI”
M192060	MORE JAYESH DILIP SUPRIYA	“COMPARATIVE STUDY OF THREE LAKES IN AND AROUND THANE”
ACADEMIC YEAR 2020-21		
ROLL NO.	NAME OF THE STUDENT	DISSERTATION TITLE
SMBOT202107 5	PANDIT ANKITA KUMARI JITENDRA AASHADEVI	“BIOSYNTHESIS AND CHARACTERIZATION OF COPPER NANOPARTICLES FROM <i>Embllica officinalis</i> FRUIT EXTRACTS AND THEIR ANTIBACTERIAL ACTIVITY”
SMBOT202107 6	NADAR KISHOR KUMARESAN SUNDARAVALLI	“BIO-ACCUMULATION OF HEAVY METALS IN MANGROVE SPECIES <i>Avicennia marina</i> : A REVIEW”
SMBOT202107 7	MORE NEHA VISHWANATH UJWALA	“PRODUCTION AND ANALYSIS OF FLORAL WINE FROM MOGRA (<i>Jasminum sambac</i>)”
SMBOT202107 8	PILLAI SRUTHI PADMAKUMAR SANDHYA	“TO OBSERVE THE INFECTION PROCESS BY NODULE BACTERIA IN <i>Trigonella foenum-graecum</i> L. (FENUGREEK)”
SMBOT202107 9	DOIFODE PRATIKSHA HANUMANT KALPANA	“EVALUATION OF ANTIMUTAGENIC ACTIVITY OF <i>Tinospora cordifolia</i> LEAF EXTRACT USING <i>Allium cepa</i> CHROMOSOME ASSAY”
SMBOT202108	PATEL	“PHYTOREMEDIATION PROSPECTS OF

**SIES COLLEGE OF ARTS SCIENCE & COMMERCE (EMPOWERED AUTONOMOUS),
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DEPARTMENT OF BOTANY

MSc PART II 2018-2023

LIST OF DISSERTATION TITLE

0	SHIVANGINI RASIKBHAI DHAKALUBEN	PROPARGITE USING ORNAMENTAL PLANTS: A REVIEW”
SMBOT202108 1	MOHITE SHWETALI DEEPAK ANKITA	“COMPARATIVE STUDY OF PLANT SPECIES FROM POLLUTED AND NON- POLLUTED AREA WITH RESPECT TO MORPHOLOGY AND SECONDARY METABOLITES: A REVIEW”
SMBOT202108 2	DSOUZA VENISHA VINCENT JOSEPHINE	“COMPARATIVE ECOLOGICAL ANALYSIS OF SOIL SAMPLES OF PROTECTED AREAS AND INDUSTRIAL AREAS”
ACADEMIC YEAR 2021-22		
ROLL NO.	NAME OF THE STUDENT	DISSERTATION TITLE
SMBOT212200 1	AALIYA BEGUM SHAIKH NISHAT ALAM	“MULTIPLE SHOOT INDUCTION IN TOOTHACHE PLANT, <i>Acmella oleracea</i> L. (SYN. <i>Spilanthes acmella</i> var. <i>oleracea</i>)”
SMBOT212200 2	SHUKLA MEENAKSHI RAKESH	“COMPARATIVE PHYTOCHEMICAL AND NUTRITIONAL ANALYSIS OF MICROGREENS GROWN IN DIFFERENT MEDIA”
SMBOT212200 3	CHULIPARAMBIL MEGHNA SUNIL	“SOIL ANALYSIS UNDER <i>Eucalyptus globulus</i> TREES NEAR WAGLE INDUSTRIAL AREA”
SMBOT212200 4	MONA DHARMARAJ	“STUDY OF ALLELOPATHIC EFFECT OF WEEDS ON WHEAT CROP”
SMBOT212200 5	ANSARI NABILA RIZWANUL HAQ	“EFFECT OF SALINITY STRESS ON THE GROWTH OF PLANT <i>Catharanthus roseus</i> (L.) G. Don”
SMBOT212200 8	NADAR RANJITHAM	“STUDY ON EFFECT OF AIR POLLUTION ON PLANTS; COMPARING FROM POLLUTED AND

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DEPARTMENT OF BOTANY

MSc PART II 2018-2023

LIST OF DISSERTATION TITLE

	SELVARAJ	NON-POLLUTED SITES”
SMBOT2122009	DANI RUCHIKA GANESH MANJULA	“IN VITRO STUDIES AND MULTIPLE SHOOTLET INDUCTION IN <i>Cyathocline purpurea</i> (Buch.- Ham. Ex. D.Don) Kuntze”
SMBOT2122010	SANDRA BALAKRISHNAN	“ANALYSIS AND EVALUATION OF BIOENZYMES DERIVED FROM FRUIT PEELS OF LEMON, ORANGE AND PINEAPPLE”
SMBOT2122011	SHAIKH AFIFA MOHAMMED ASAD	“ISOLATION OF ENDOPHYTIC FUNGI FROM <i>Polyalthia longifolia</i> AND STUDY OF ITS SECONDARY METABOLITES”
SMBOT2122012	AZIZI UMMUL FAZAL	“ISOLATION AND CULTURING VARIOUS ALGAL SPECIES FOUND IN POWAI LAKE AND ANALYSING ITS VARIOUS PARAMETERS”
ACADEMIC YEAR 2022-23		
ROLL NO.	NAME OF THE STUDENT	DISSERTATION TITLE
SMBOT2223001	ANJALI YOGENDAR CHAURASIYA	“COMPARATIVE ANALYSIS OF ESSENTIAL OIL AND ANTIBACTERIAL ACTIVITY OF IN-VIVO AND IN-VITRO PLANT OF <i>Eclipta alba</i> (L.) Hassk”
SMBOT2223002	ARCHANA RAMSINGAR PRAJAPATI	“PHYTOREMEDIATION POTENTIAL OF <i>Catharanthus roseus</i> AGAINST PROPARGITE”
SMBOT2223003	CHOUDHARY ZUBER AKBAR	“AQUEOUS <i>Aspergillus</i> EXTRACT MEDIATED ELICITATION OF WEDELOLACTONE FROM THE CALLUS CULTURE OF <i>Sphagneticola trilobata</i> ”
SMBOT222300	DEEPA PRAKASH	“EVALUATION OF TOXICITY EFFECT OF

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SION (W), MUMBAI – 400022**

DEPARTMENT OF BOTANY

MSc PART II 2018-2023

LIST OF DISSERTATION TITLE

4	GOSWAMI	ALUMINIUM ON ROOT GROWTH AND MITOTIC INDEX OF <i>Allium cepa</i> (ONION) AND <i>Allium sativum</i> (GARLIC”
SMBOT222300 5	JESSNA SHAJI	“EVALUATION OF AIR POLLUTION TOLERANCE INDEX AND ANTICIPATED PERFORMANCE INDEX OF PLANTS FROM INDUSTRIAL SITE, THANE(W)
SMBOT222300 6	NARGIS RAEES KHAN	“ALLELOPATHIC EFFECTS OF WEEDS ON <i>Amaranthus cruentus</i> ”
SMBOT222300 7	PRABHANJAN JITENDRA LIMAYE	“STANDARDIZATION OF COST-EFFECTIVE PROTOCOL FOR MICROPROPAGATION OF <i>Centella asiatica</i> Linn. AND <i>Bacopa monnieri</i> Linn.”
SMBOT222300 9	PRIYANKA NARENDRA PRAJAPATI	“COMPREHENSIVE ECOLOGICAL STUDY OF SAMPLES FROM ULHAS RIVER, DOMBIVLI”
SMBOT222301 0	RAKSHA MANJU CHANDAN	“EVALUATION OF ANTIMUTAGENIC ACTIVITY OF <i>Coriandrum sativum</i> L. USING <i>Allium cepa</i> CHROMOSOME ASSAY”
SMBOT2223011	SHWETA MADHUKAR WAYDANDE	“STUDY OF GAMMA IRRADIATION ON <i>Phaseolus vulgaris</i> L.”

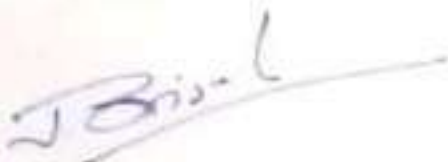
Date: 01/10/2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, **Ms. SHASHIKALA JAYSWAL** was working in the **Department of Laboratory Medicine, Fortis Hospitals Mulund (west) Mumbai** as an observer from **1st June 2019 to 30th September 2019**

She has worked in the Departments of - **Hematology, Clinical Pathology, Accession, Microbiology, Serology, Phlebotomy, Immunoassay, Histopathology, Cytology and Biochemistry.**

She is found to be good, sincere with pleasant manner and we wish her Bright Future



Dr. Brijesh Kumar
MD Pathologist. (HOD)
Department of Lab Medicine





Fortis Hospitals Limited
Mulund Complex Link Road,
Mumbai 400 078, India.
Tel: 022 4925 4000
Company: 02 22 6111 6111
Website: www.fortishospitals.com

STATIONERY FOR REPORTS & BILLING ONLY

4th OCT 2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, **Ms. Shashikala Jayswal** from SIES College sion, Mumbai had undergone training from 8th August 2019 to 21st August 2019 in Blood Bank at Fortis Hospitals, Mulund, Mumbai – 400 078, as a part of his syllabus for P.G.D.M. L.T course.

She has been punctual and hard-working. She has successfully completed the training.

We wish her success.


Dr. Lalit Dhanore
HOD-Blood Bank
Fortis Hospital Blood Bank
Mulund, Mumbai – 400 078
Tel. no. 022-49254370/74
Dept. of Transfusion
Medicine
(Blood Bank)
Fortis Hospitals Ltd.
Mulund Goregaon Link Road,
Mumbai - 400 078
Folio No. 28 C-41



CIN No. U98800DL2005PLC222566 | GST IN 27AANC3718N1E | PAN No. AACPF3718N | ST No. AACPF3718N50003
Regd. Office Address - Escorts Heart Institute and Research Centre, DLF-Phase II, Gurgaon, Haryana - 122 002



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30th Sept 2019**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that, Ms. Scinila Kazi from SIES College sion, Mumbai had undergone training from 1st june 2019 to 15th june 2019 in Blood Bank at Fortis Hospitals, Mulund, Mumbai – 400 078, as a part of his syllabus for P.G.D.M. L. T course.

She has been punctual and hard-working. She has successfully completed the training.

We wish her success.



Dept. of Transfusion
Dr. Lalit Dharamdas
(Blood Bank)
HOD-Blood Bank
Fortis Hospitals Ltd.
Fortis Hospital, Mulund Goregaon Link Road,
Mulund, Mumbai - 400 078.
N.A.C. No.: 28 C-41
D.A. No.: 28 C-41
Mulund, Mumbai - 400 078.
Tel. no. 022-49254370/74

दूरभाष / Telephone : 2557 6759, 2556 3137 - 42
तार / Telegrams : बार्क-मुंबई-चेम्बूर /
BARC-MUMBAI-CHEMBUR
फैक्स / Fax : 022-2550 5151, 2551 9613
टेलीफैक्स / Tele Fax : 022-2558 2098



सत्यमेव जयते

भारत सरकार

Government of India

शाका परमाणु अनुसंधान केंद्र

BHADHA ATOMIC RESEARCH CENTRE

Pathology Unit

बीएचआरसी अस्पताल / BARC HOSPITAL
अनुशक्तिनगर / Anushaktinagar
मुंबई / Mumbai - 400 094

Ref: Med/Path/OPA/8739

Date: 30/09/2019

This is to certify that Ms. Afrida Khatoon Mohd Fulhasan, as Pathology (Trainee) w.e.f. 01/06/2019 to 30/09/2019. During the period she worked in Hematology, Histopathology, Biochemistry, Blood Bank, Microbiology, Clinical Pathology, Blood Collection duty. She was very good in her practical skills and functional competence and worked as a part of a team during her tenure. We wish her the best in all her endeavors in future.

(Dr. Susan Cherian)
Head, Pathology Unit

डॉ. सुसान चेरियन / Dr. Susan Cherian
अध्यक्ष, पैथोलॉजी युनिट / Head, Pathology Unit,
भारत सरकार / Government of India
बीएचआरसी अस्पताल, मुंबई / BARC Hospital, Mumbai-400 094
Reg. No. 1111/517/3

Date: 05/10/2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, Ms. SCINILA OBAID KAZI was working in the Department of Laboratory Medicine, Fortis Hospitals Mulund (west) Mumbai as an observer from 1ST June 2019 to 30th September 2019.

She has worked in the Departments of - Hematology, Clinical Pathology, Accession, Microbiology, Serology, Phlebotomy, Immunoassay, Histopathology, Cytology and Biochemistry.

She is found to be good, sincere with pleasant manner and we wish her Bright Future.



Dr. Brijesh Kumar,
MD Pathologist (HOD) |
Department of Lab Medicine



दूरभाष / Telephone : 2557 6739, 2556 3137 - 42
तार / Telegrams : बार्क-मुंबई-चेम्बुर /
BARC-MUMBAI-CHEMBUR
फैक्स / Fax : 022-2550 5151, 2551 9613
टेलीफैक्स / Tele Fax : 022-2558 2098



सत्यमेव जयते

भारत सरकार

Government of India

बाबा परमाणु अनुसंधान केंद्र

BHABHA ATOMIC RESEARCH CENTRE

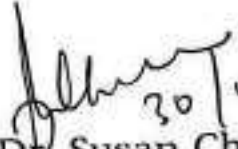
Pathology Unit

बीएचआरसी अस्पताल / BARC HOSPITAL
अणुशक्तिनगर / Anushaktinagar
मुंबई / Mumbai - 400 094

Ref: Med/Path/OPA/8739

Date: 30/09/2019

This is to certify that Ms. Mahabale Vidya Vijay, as Pathology (Trainee) w.e.f. 01/06/2019 to 30/09/2019. During the period she worked in Hematology, Histopathology, Biochemistry, Blood Bank, Microbiology, Clinical Pathology, Blood Collection duty. She was very good in her practical skills and functional competence and worked as a part of a team during her tenure. We wish her the best in all her endeavors in future.


30/09/19
(Dr. Susan Cherian)
Head, Pathology Unit

डॉ. सुसान चेरियन / Dr. Susan Cherian
आपथ्य पेशेवतीची इकाई / Head, Pathology Unit,
भारत सरकार / Government of India
बीएचआरसी अस्पताल, मुंबई / BARC Hospital, Mumbai-400 094
Reg.No.MINC51748

बृहन्मुंबई महानगरपालिका
हिं. बा. ठा. वै. म. व डॉ. रु.न. कूपर मनपा रुग्णालय, जुहु, मुंबई 400 056.
क. आअ/16016/कूपर दि. 14.10.2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Miss. Khan Farheen Afsar has worked as an Intern for practical Training in the Pathology Department of Dr. R. N. Cooper Hospital for the period of 4 months from 01.06.2019 to 30.09.2019.

He has completed her training successfully in the section of Hematology, Biochemistry, Microbiology, Histopathology, Emergency-Lab and Blood Bank.

M Khan
14.10.19
1st & 2nd
Dept. of Pathology
H. B. T. Medical College &
Dr. R. N. Cooper Mem. Gen. Hosp.,
Juhu, Mumbai 400 056

[Signature]
Medical Superintendent
Dr. R. N. Cooper Mem. Gen. Hosp.,
Juhu



Surgeon Capt. Dr. M.K. Gupta (Retd)
M.D., D.C.P.
Head of Department

September 30, 2019

SIES Institute of Medical & Laboratory Technology
Slon (West)
Mumbai - 400022

Certified that following students from your institute have undergone **Internship Training** at **Department of Pathology, Bombay Hospital Trust and Medical Research Centre**, 12 New Marine Lines, Mumbai - 400020 with effect from **1st June 2019 to 30th September 2019**.

Name of the students

- 1) **MR IYER SACHIN CHANDRAN**
- 2) **MR NISHAD KALPNATH PHOOLCHAND**
- 3) **MS SINGH KAJAL BABAN**
- 4) **MS GAWAD PRITAM SUNIL**

Surg Capt Dr. M.K. Gupta (Retd)
MD, DCP
Head of Department

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30th Sept 2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, **Ms. Veda Sadanand Kunte** from SIES College sion, Mumbai had undergone training from 1st July 2019 to 15th July 2019 in Blood Bank at Fortis Hospitals, Mulund, Mumbai – 400 078, as a part of his syllabus for P.G.D.M. L. T course.

She has been punctual and hard-working. She has successfully completed the training.

We wish her success.



Dr. Lalit Dhanole
HOD-Blood Bank
Fortis Hospitals Ltd.
Mulund Goregaon Link Road,
Mulund, Mumbai - 400 078.
Tel. no. 022-49254370/74



Date: 05/10/2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, **Ms. Veda Sadanand Kunte** was working in the Department of Laboratory Medicine, Fortis Hospitals Mulund (west) Mumbai as an observer from 1ST June 2019 to 30th September 2019.

She has worked in the Departments of - Hematology, Clinical Pathology, Accession, Microbiology, Serology, Phlebotomy, Immunoassay, Histopathology, Cytology and Biochemistry.

She is found to be good, sincere with pleasant manner and we wish her Bright Future.



Dr. Brijesh Kumar,
MD Pathologist. (HOD),
Department of Lab. Medicine



सत्यप्रत
- 11/10/19
श्री. विसम-चंद्रकांत जोशी
विश्व कार्यकारी अधिकारी
ड. चव्हाण, सा. अलिवाम-रायगड

दूरभाष / Telephone : 2557 6759, 2556 3137 - 42
ताम्र / Telegrams : बार्क-मुंबई-चेम्बूर /
BARC-MUMBAI-CHEMBUR
फैक्स / Fax : 022-2550 5151, 2551 9613
टेलीफैक्स / Tele Fax : 022-2558 2098



भारत सरकार

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BHABHA ATOMIC RESEARCH CENTRE

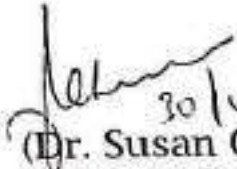
Pathology Unit

बीएचआरसी अस्पताल / BARC HOSPITAL
अनुसंधाननगर / Anushaktinagar
मुंबई / Mumbai - 400 094

Ref: Med/Path/OPA/४३३

Date: 30/09/2019

This is to certify that Ms. Khan Kulsum Nabi Hasan, as Pathology (Trainee) w.e.f. 01/06/2019 to 30/09/2019. During the period she worked in Hematology, Histopathology, Biochemistry, Blood Bank, Microbiology, Clinical Pathology, Blood Collection duty. She was very good in her practical skills and functional competence and worked as a part of a team during her tenure. We wish her the best in all her endeavors in future.


30/09/19
(Dr. Susan Cherian)
Head, Pathology Unit

डॉ. सुसान चेरियन / Dr. Susan Cherian
अध्यक्ष, रोगविज्ञान विभाग / Head, Pathology Unit
भारत सरकार / Government of India
बीएचआरसी अस्पताल, मुंबई / BARC Hospital, Mumbai-400 094
Reg.No.I/MC/01779

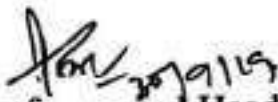


**Department of Pathology
Seth G. S. Medical College
Parel, Mumbai 400012, India**

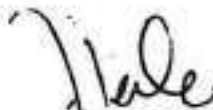
Date: 30th September, 2019.


This is to state that, **Miss. Rohini Shivaji Shinde**, student from SIES College of Arts Science & Commerce, Sion (W), Mumbai – 400 022, was Observer in the Department of Pathology from 01.06.2019 to 30.09.2019.

During this period she was present in the section of Clinical Pathology & Hematology, Neuropathology, Surgical, OPD 008, CVTC lab 116, CVTC 315, Cytology, Blood Bank , C.C.B. Lab & Microbiology.


Professor and Head
Department of Pathology
PROFESSOR AND HEAD
G.S.M.C. and K.E.M.H.
Department of Pathology
Parel, Mumbai-12


Professor and Head
Department of Transfusion Medicine
Seth G. S. Medical College & K.E.M. Hospital,
Parel, Mumbai - 400 012.


Professor and Head
Dept. of Biochemistry
PROFESSOR AND HEAD
DEPARTMENT OF BIOCHEMISTRY
Seth G. S. Medical College &
K.E.M. Hospital, Parel,
Mumbai-400 012.


Professor and Head
Department of Microbiology
1.10.19
Prof. & Head of Microbiology
Seth G. S. Medical College &
K. E. M. Hospital,
Parel, Mumbai - 400 012.



Guru Nanak Hospital & Research Centre

ESTD. BY- SRI GURU SINGH SABHA (REGD.) MUMBAI

S-341, Gandhi Nagar, Bandra (E), Mumbai - 400 051. Tel.: 4222 7777. Toll Free No.: 180030925111

Email : info@gurunankhospital.com; Website: www.gurunankhospital.com

REF.NO.GNH: INT: CERT: 09

30/07/2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Bebal Masuma** student of SIES Institute of Medical and Laboratory Technology has successfully completed her internship in our Hospital from 19/07/2019 to 30/07/2019 as part of the curriculum in 'Microbiology Department'.

During her internship, we have found her work satisfactory.

We wish her all the best in her future endeavours.

C.H. NARKAR
CHIEF OPERATING OFFICER





**Department of Pathology
Seth G. S. Medical College
Parel, Mumbai 400012, India**

Date: 1st October, 2019.

This is to state that, **Miss. Bebal Masuma Abdul Rauf**, student from SIES College of Arts Science & Commerce, Sion (W), Mumbai – 400 022, was Observer in the Department of Pathology from 01.06.2019 to 30.09.2019.

During this period she was present in the section of Clinical Pathology & Hematology, Neuropathology, Surgical, OPD 008, CVTC 315, CVTC lab 116 Cytology, Blood Bank, and C.C.B. Lab.

Amal
31/10/19
Professor and Head
Department of Pathology
PROFESSOR AND HEAD
G.S.M.C. and K.E.M.H.
Department of Pathology
Parel, Mumbai-12

GJ medh
Professor and Head
Transfusion Medicine
Professor and Head
Department of Transfusion Medicine
Seth G. S. Medical College & K.E.M. Hospital
Parel, Mumbai - 400 012.

Prakash
Professor and Head
Dept. of Biochemistry.
PROFESSOR AND HEAD
DEPARTMENT OF BIOCHEMISTRY
SETH G. S. MEDICAL COLLEGE
K.E.M. HOSPITAL, PAREL,
MUMBAI-400 012.

Date: 01/10/2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, Ms. SHASHIKALA JAYSWAL was working in the Department of Laboratory Medicine, Fortis Hospitals Mulund (west) Mumbai as an observer from 1ST June 2019 to 30th September 2019.

She has worked in the Departments of - Hematology, Clinical Pathology, Accession, Microbiology, Serology, Phlebotomy, Immunoassay, Histopathology, Cytology and Biochemistry.

She is found to be good, sincere with pleasant manner and we wish her Bright Future.



Dr. Brijesh Kumar.
MD Pathologist. (HOD)
Department of Lab Medicine



STATIONERY FOR REPORTS & BILLING ONLY

4th OCT 2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, Ms. Shashikala Jayswal from SIES College sion, Mumbai had undergone training from 8th August 2019 to 21st August 2019 in Blood Bank at Fortis Hospitals, Mulund, Mumbai - 400 078, as a part of his syllabus for P.G.D.M. L. T course.

She has been punctual and hard-working. She has successfully completed the training.

We wish her success.



Dept. of Transfusion
Medicine
(Blood Bank)
Fortis Hospitals Ltd.
Mulund Goregaon Link Road,
Fortis Hospital Blood Bank,
Mulund, Mumbai - 400 078.
Tel. no. 022-49254370/74
F. No. LIC. No.: 28 C-41





Surgeon Capt. Dr. M.K. Gupta (Retd.)
M.D., D.C.P.
Head of Department

September 30, 2019

SIES Institute of Medical & Laboratory Technology
Sion (West)
Mumbai - 400022

Certified that following students from your institute have undergone **Internship Training at Department of Pathology, Bombay Hospital Trust and Medical Research Centre, 12 New Marine Lines, Mumbai - 400020 with effect from 3rd June 2019 to 30th September 2019.**

Name of the students

- 1) MR BURSE SAGAR PANDIT
- 2) MR YADAV ROHIT JEETLAL

Surg Capt Dr. M.K. Gupta (Retd)
MD, DCP
Head of Department

Checked by:
Counter-Checked by:

M.D.
PATHOLOGIST



MEDICAL RESEARCH CENTRE
Bombay Hospital Trust
12, New Marine Lines, Mumbai - 400 020. Tel: 2206 7676
DEPARTMENT OF PATHOLOGY



Surgeon Capt. Dr. M.K. Gupta (Retd.)
MD, DCP
Head of Department

September 30, 2019

SIES Institute of Medical & Laboratory Technology
Slon (West)
Mumbai - 400022

Certified that following students from your institute have undergone **Internship Training** at **Department of Pathology, Bombay Hospital Trust and Medical Research Centre**, 12 New Marine Lines, Mumbai - 400020 with effect from **3rd June 2019 to 30th September 2019**.

Name of the students

- 1) MR BURSE SAGAR PANDIT
- 2) MR YADAV ROHIT JEETLAL

Surg Capt Dr. M.K. Gupta (Retd)
MD, DCP
Head of Department

Checked by:
Counter-Checked by:

M.D.
PATHOLOGIST



**Department of Pathology
Seth G. S. Medical College
Parel, Mumbai 400012, India**

Date: 1st October, 2019.

This is to state that, **Miss. Sadhana Laxman Soman**, student from SIES College of Arts Science & Commerce, Sion (W), Mumbai - 400 022, was Observer in the Department of Pathology from 01.06.2019 to 30.09.2019.

During this period she was present in the section of Clinical Pathology & Hematology, Neuropathology, Surgical, OPD 008, CVTC 315, CVTC lab 116 Cytology, Blood Bank, and C.C.B. Lab.

Handwritten signature
Professor and Head
Department of Pathology
PROFESSOR AND HEAD
G.S.M.C. and K.E.M.H.
Department of Pathology
Parel, Mumbai-12

Handwritten signature
Professor and Head
Transfusion Medicine
Professor and Head
Department of Transfusion Medicine
Seth G. S. Medical College & K.E.M. Hospital
Parel, Mumbai - 400 012.

Handwritten signature
Professor and Head
Dept. of Biochemistry.

PROFESSOR
OF BI
Seth G. S. Medical
K.E.M. Hospital
Mumbai-400 012



Guru Nanak Hospital & Research Centre

ESTD. BY- SRI GURU SINGH SABHA (REGD.) MUMBAI
6-341, Gandhi Nagar, Dandra (E), Mumbai - 400 051. Tel.: 4222 7777. Toll Free No.: 18003002511
Email : info@gurunankhospital.com; Website: www.gurunankhospital.com

REP.NO.GNH: INT: CERT: 10

12/08/2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Sadhana Soman student of SIES Institute of Medical and Laboratory Technology has successfully completed her internship in our Hospital from 31/07/2019 to 12/08/2019 as part of the curriculum in 'Microbiology Department'.

During her internship, we have found her work satisfactory.

We wish her all the best in her future endeavours.

C.H. NARKAR
CHIEF OPERATING OFFICER



A UNIT OF GURU NANAK QUIN CENTENARY MEMORIAL HOSPITAL TRUST

Non-Profit Institution and Member of the Association of Hospitals

STATIONERY FOR REPORTS & BILLING ONLY

30th Sept 2019**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that, **Ms. Aayasha Mahesh Bhoys** from SIES College sion, Mumbai had undergone training from 21st September 2019 to 30th September 2019 in Blood Bank at Fortis Hospitals, Mulund, Mumbai – 400 078, as a part of his syllabus for P.G.D.M. L. T course.

She has been punctual and hard-working. She has successfully completed the training.

We wish her success.



Dept. of Transfusion
Medicine
(Blood Bank)
Fortis Hospitals Ltd.
Mulund Goregaon Link Road,
Nahur Mumbai - 400 078.
C.A. LIC. No.: 28 C-41
Fortis Hospital Blood Bank,
Mulund, Mumbai – 400 078.
Tel. no. 022-49254370/74

Date: 05/10/2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, **Ms. Aayesha Mahesh Bhoje** was working in the Department of Laboratory Medicine, Fortis Hospitals Mulund (west) Mumbai as an observer from 1ST June 2019 to 30th September 2019.

She has worked in the Departments of - Hematology, Clinical Pathology, Accession, Microbiology, Serology, Phlebotomy, Immunoassay, Histopathology, Cytology and Biochemistry.

She is found to be good, sincere with pleasant manner and we wish her Bright Future.



Dr. Brijesh Kumar,
MD Pathologist. (HOD)
Department of Lab Medicine



Date: 10-Oct-2019

TO WHOMEVER IT MAY CONCERN

This to certify that Ms. Jagruti Jadhav from SIES College Sion, Mumbai had undergone training from 05th Sep 2019 to 11th Sep 2019 in Histopathology & Cytology Department at Parikshan Surgical Pathology & Cytology Lab LLP, as a part of her syllabus for P.G.D.M.L.T. course.

She has been punctual & hard-working. She has successfully completed the training.

We wish her success.



Dr. Gauri Chapolikar Vidolkar MD
MMC Regd. No.: 2012/04/0992
Parikshan Surgical Pathology & Cytology Lab LLP



**Department of Pathology
Seth G. S. Medical College
Parel, Mumbai 400012, India**

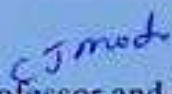
Date: 30th September, 2019.

This is to state that, **Miss. Rohini Shivaji Shinde**, student from SIES College of Arts Science & Commerce, Sion (W), Mumbai – 400 022, was Observer in the Department of Pathology from 01.06.2019 to 30.09.2019.

During this period she was present in the section of Clinical Pathology & Hematology, Neuropathology, Surgical, OPD 008, CVTC lab 116, CVTC 315, Cytology, Blood Bank, C.C.B. Lab & Microbiology.


Professor and Head


Department of Pathology
PROFESSOR AND HEAD
G.S.M.C. and K.E.M.H.
Department of Pathology
Parel, Mumbai-12


Professor and Head
Department of Transfusion Medicine

Professor and Head
Department of Transfusion Medicine
Seth G. S. Medical College & K.E.M. Hospital
Parel, Mumbai - 400 012.


Professor and Head

Dept. of Biochemistry
PROFESSOR AND HEAD
DEPARTMENT OF BIOCHEMISTRY
Seth G. S. Medical College &
K.E.M. Hospital, Parel,
Mumbai-400 012.


Professor and Head

Department of Microbiology

1.10.19
Prof. & Head of Microbiology
Seth G. S. Medical College &
K. E. M. Hospital,
Parel, Mumbai - 400 012.

दूरभाष / Telephone : 2557 6759, 2556 3137 - 42
दूर / Telegrams : बार्क-मुंबई-चेम्बूर /
BARC-MUMBAI-CHEMBUR
फैक्स / Fax : 022-2550 5151, 2551 9613
टेलीफैक्स / Tele Fax : 022-2558 2098



बीरबाली अस्पताल / BARC HOSPITAL
अनुशक्तिनगर / Anushaktinagar
मुंबई / Mumbai - 400 094

सत्यमेव जयते

भारत सरकार

Government of India

भाषा परमाणु अनुसंधान केंद्र

BHABHA ATOMIC RESEARCH CENTRE

Pathology Unit

Ref: Med/Path/OPA/6739

Date: 30/09/2019

This is to certify that Ms. Yadav Sweta Rajdev, as Pathology (Trainee) w.e.f. 01/06/2019 to 30/09/2019. During the period she worked in Hematology, Histopathology, Biochemistry, Blood Bank, Microbiology, Clinical Pathology, Blood Collection duty. She was very good in her practical skills and functional competence and worked as a part of a team during her tenure. We wish her the best in all her endeavors in future.

(Dr. Susan Cherian)

Head, Pathology Unit

अध्यक्ष, पैथोलॉजी युनिट / Head, Pathology Unit

भारत सरकार / Government of India

बीरबाली अस्पताल, मुंबई / BARC Hospital, Mumbai-400 094

Reg.No.MACK1748



**Department of Pathology
Seth G. S. Medical College
Parel, Mumbai 400012, India**

Date: 21 October, 2019.

This is to state that, **Miss. Shrutangi Satyavan Sawant**, student from SIES College of Arts Science & Commerce, Sion (W), Mumbai - 400 022, was Observer in the Department of Pathology from 01.06.2019 to 30.09.2019.

During this period she was present in the section of Clinical Pathology & Hematology, Neuropathology, Surgical, OPD 008, CVTC 315, CVTC lab 116 Cytology, Blood Bank, and C.C.B. Lab.

[Signature]
Professor and Head
Department of Pathology
PROFESSOR AND HEAD
G.S.M.C. and K.E.M.H.
Department of Pathology
Parel, Mumbai-12

C.J. mod.
Professor and Head
Transfusion Medicine
Professor and Head
Department of Transfusion Medicine
Seth G. S. Medical College & K.E.M. Hospital,
Parel, Mumbai - 400 012.

[Signature]
Professor and Head
Dept. of Biochemistry.
PROFESSOR AND HEAD
DEPARTMENT OF BIOCHEMISTRY
Seth G. S. Medical College &
K.E.M. Hospital,
Mumbai - 400 012.

STATIONERY FOR REPORTS & BILLING ONLY

30th Sept 2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, Ms. Jagruti Jaywant Jadhav from SIES Institute educational research SION, Mumbai had undergone training from 8th Aug 2019 to 21st Aug 2019 in Blood Bank at Fortis Hospitals, Mulund, Mumbai – 400 078, as a part of his syllabus for P.G.D.M, L, T course.

She has been punctual and hard-working. She has successfully completed the training

We wish her success.


Dept. of Transfusion
Medicine
(Blood Bank)
Dr. Lalit Dhantia
HOD-Blood Bank
Fortis Hospitals Ltd.
Mulund Goregaon Link Road,
Fortis Hospital Blood Bank
Mulund, Mumbai - 400 078.
F.O. Bank,
LIC. No.: 28 C-41
Tel no 022-49254370/74



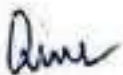
Date: 30/09/2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, **Ms. JAGRUTI JAYWANT JADHAV** was working in the Department of Laboratory Medicine, Fortis Hospitals Mulund (west) Mumbai as an observer from 1ST June 2019 to 30th September 2019.

She has worked in the Departments of - Hematology, Clinical Pathology, Accession, Microbiology, Serology, Phlebotomy, Immunoassay, Histopathology, Cytology and Biochemistry.

She is found to be good, sincere with pleasant manner and we wish her Bright Future.


Dr. Brijesh Kumar,
MD Pathology (MCh, DOD)
Department of Lab Medicine



STATIONERY FOR REPORTS & BILLING ONLY

30th Sept 2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, **Ms. RUCHITA NARAYAN GIRASE** from SIES College sion, Mumbai had undergone training from 27th August 2019 to 13th September 2019 in Blood Bank at Fortis Hospitals, Mulund, Mumbai – 400 078, as a part of his syllabus for P.G.D.M. L T course.

She has been punctual and hard-working. She has successfully completed the training.

We wish her success.



Dr. Lalit Dharam
HOD-Blood Bank
Fortis Hospital Blood Bank,
Mulund, Mumbai – 400 078
Tel no. 022-49254370/74

Dept. of Transfusion
(Blood Bank)

Fortis Hospitals Ltd.
Goregaon Link Road,
Mumbai - 400 078
1F C-11



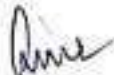
Date: 30/09/2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, Ms. NIRAL RAJENDRAKUMAR PANCHAL was working in the Department of Laboratory Medicine, Fortis Hospitals Mulund (west) Mumbai as an observer from 1st June 2019 to 30th September 2019.

She has worked in the Departments of - Hematology, Clinical Pathology, Accession, Microbiology, Serology, Phlebotomy, Immunoassay, Histopathology, Cytology and Biochemistry.

She is found to be good, sincere with pleasant manner and we wish her Bright Future.


Dr. Brijesh Kumar,
MD Pathologist (HOD)
Department of Lab Medicine



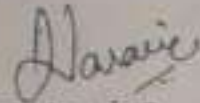
4/10/2019

CERTIFICATE

This is to certify that Ms Sania Siddique from SIES College has worked as a Trainee in Department of Lab Medicine of Nanavati Superspeciality Hospital for 4 months from 1/6/2019 to 1/10/2019 .

She has worked in departments of Haematology, Biochemistry, Immunology, Microbiology ,clinical pathology, Blood Bank and Histopathology .

Basic training for Phlebotomy has been included in the training.



Dr Ami Varaiya

Lab Co-ordinator

H.O.D. Microbiology

AC/04.08.2018/RS 1



SIES

College of Arts,
Science &
Commerce (Autonomous)

RISE WITH EDUCATION

NAAC REACCREDITED - 'A' GRADE

(Affiliated to University of Mumbai)

Faculty: Arts

Programme: B.A.

Subject: Philosophy

Academic Year: 2018-2019

TYBA

Credit Based Semester and Grading System
Syllabi approved by Board of Studies in
Philosophy with effect from June 2018

Class: TYBA
Subject Code: SIUAPHI 53
Paper Title: Living Ethical Issues

Credits: 3.5
Marks: 60
No. of Lectures: 45

Objectives: The Course aims to:

- a. Engage with ethical concern in relation to decision making
 - b. Sensitize towards environmental deliberations
 - c. Inquire about social living issues, developing biotechnologies with regard to laws
 - d. Foster ethical behavior to participate in the institutional social responsibility
 - e. Inculcate the value of being fair, honest and ethical
-

Unit I: Religious attitudes toward the Environment [11 lectures]

- (a) Vedic Puranic View.
- (b) Judeo-Christian View.

Unit II: Environmental Ethics [12 lectures]

- (a) Introduction to anthropocentrism, non-anthropocentrism, bio-centrism
- (b) Shallow and Deep ecology; Ecofeminism

Unit III: Some Living Ethical Debates [11 lectures]

- (a) Obligations to future generations.
- (b) Ethics of nuclear war

Unit IV: Freedom of Expression and Media [11 lectures]

- (Print and electronic news)
- (a) Privacy and censorship in media; pornography and obscenity; arguments for and against pornography; is censorship of pornographic material justified?
 - (b) Truth telling in Journalism (Truthfulness, Fairness and Objectivity in Journalism)

Suggested References:

- Berry, D. (ed) *Ethics and Media Culture: Practices and Representations* (Focal Press, Oxford, 2000)
- Frey, R.G. and Wellman, C.H. (ed.) *A Companion to Applied Ethics* (Blackwell, 2003)
- Gottlieb, R.S. (ed.) *The Oxford Handbook of Religion and Ecology Part I* (Oxford University Press, 2006)
- Jamieson, D. (ed.) *A Companion to Environmental Philosophy* (Blackwell Publishing, 2001)
- Warren, K. "The Power and Promise of Ecological Feminism" in Louis P. Pojman

- (ed.) *Environmental Ethics: Readings in Theory and Applications* 3rd edn. (Wadsworth, 2001)
- Zimmerman, M. (ed.) *Environmental Philosophy: From Animal Rights to Deep Ecology* (New Jersey: Prentice hall/Englewood Cliffs, 1993)
 - Smith, R.F. *Ethics in Journalism* 6th edn (Blackwell, 2008)

TYBA PAPER VI
SEMESTER V & VI: LIVING ETHICAL ISSUES

The following question paper pattern for TYBA titled Living Ethical Issues (Semester V & VI) to be brought into effect from the academic year (2018-2019)

Internal Assessment [40 marks – 20 marks class test + 15 marks individual/group presentation + 5 marks for active participation in the class]

Any **One** of the above first two units

1. ONLINE TEST (Multiple Choice) - 20 marks class test
2. INDIVIDUAL/GROUP - Project work/ Book review/ Symposium/ Written Test / Panel Discussion / Power Point Presentation/ Field Visit/ Report Writing/ Paper Presentation-20 marks

Topics for project work:

Semester V/VI- Genocide, fake news, murder and suicide, Whistle blowers, Poaching animals, Fanaticism

Semester End Exam Evaluation [60 marks]

1. There shall be four compulsory questions
2. Four questions shall correspond to the four units (with internal choice)
3. Each question shall carry a maximum of 15 marks

Q.1. Unit 1 – a or b	15
Q.2. Unit 2 – a or b	15
Q.3. Unit 3 – a or b	15
Q.4. Unit 4– a or b	15

TYBA Educational Tour 2019

18
20
Shamala

A study tour was conducted for the third-year students from the departments of History, Philosophy and Politics of the SIES College of Arts, Science and Commerce to Raigadh, Dapoli and Indapur from the 14th to the 17th of November. The tour was organized by the college and AmrutYatra, a travel agency. It was organized with the aim of exposing students to life (particularly away from Mumbai in less privileged places/ rural settings)

The tour started early on 14th morning, with a six-hour drive from Mumbai to Raigadh. Despite the early start, the journey was lively and helped break the ice. Halfway through the bus ride we stopped for breakfast and continued on to Raigadh fort.

We reached Raigadh at around one o'clock in the afternoon. We had lunch and proceeded on to the fort. We took the ropeway up to the fort which allowed us a stunning view of the Raigadh topography.

At the fort, we spent our time looking around, learning about the rule of Shivaji Maharaj, who built the fort, how the fort functioned and how life in the fort must have been.

We began our descent at around five o'clock. Downhill we stopped for tea and snacks and proceeded on to the Loksadhana Public Charitable Trust, an NGO that works on educating the underprivileged children.

We reached Loksadhana late at night and although it was past their usual dinner time, the girls at the project stayed back to greet, help and show us around, making us feel very welcome.

On the second day, we left for an early morning visit Kolthare beach. We were very surprised to find no hawkers at the beach. We later learnt that it was due to strong local insistence that the beach was not commercialized. In doing so the locals are ensuring that their environment is kept healthy and clean and also making sure their

culture and lifestyle do not change due to commercialization of the beautiful Konkan beaches.

From the beach, we walked to a nearby home-stay where we had 'Dadpe Pohe' for breakfast. We were shown around the 200 odd-year-old, traditional Konkan house by the kind owners. The house impressed on us the innovative and advanced ways in which the people of Konkan have thrived in their particular climate and made the best of the nature around them, all the while living very sustainable lives.

From the Homestay, we then walked to an Ayurvedic factory nearby, called Agom. The owner, Mr Mahajan spoke to us about the origins of the company and traditional Indian medicine. We learnt how Agom combines Ayurveda and Homeopathy to create medicines and health & lifestyle products that are gentle on the body and at the same time affordable. We were then given a tour of the factory and we purchased a lot of products from Agom, having been convinced by their methods and dedication.

Back at Loksadhna, we were given a tour of the Loksadhna project and interacted with school children. It was interesting to learn of the wide extent of their practical and vocational education. Children were taught everything from welding to climbing and harvesting coconut trees to producing items of everyday use like pouches, perfumes, chikkis & ice-cream, We were then given the opportunity to make torches which was a very engaging experience and allowed us to put the theory we'd learnt back in school to practice.

Dr Raja Dandekar, the co-founder of Loksadhna, along with his wife Renu Dandekar, invited us to a question and answer session at his house. When we reached there, we were first taken to a cave nearby which Dr Dandekar discovered. The hollow had caved in from the top and illuminated all the lush green moss inside. The visit to the cave was truly ethereal. On the way back we also learnt about the local wild vegetation. At the Dandekar house, we participated in a lively discussion, asking the founders many questions about their aims, motivations and philosophy. It was an enriching conversation and by the end of it, they had perhaps made the prospect of serving the society in a similar way, less daunting.

After dinner at Loksadhna, we had a campfire under the clear skies, unaffected by the light pollution one finds in the cities. We played a game of antakshari after which

there was a powerful discussion on the starkly different lifestyle we had been experiencing in the last few days calling into question things like privilege. The professors then shared stories from past trips that provided opportunity for learning, after which we called it a night.

Early on the 16th morning we set out on a nature trail to the nearby Chikhalgaon, believed to be the birthplace of Lokamanya Bal Gangadhar Tilak. We visited a Tilak memorial where a spontaneous discussion exposed us to other facets of Tilak's work and allowed us to see Tilak as a more rounded personality with a very relevant ideology.

After breakfast, we visited the powder-coating workshop of Mr Dinesh, whom Dr Dandekar considered one of his "*kajve*" or torches. We interacted with him to find out more about powder-coating, his journey and his part in Loksadhna.

We then proceeded on to Sane Guruji Smarak in Wadghar. There we were taken on a tour of the very beautiful campus amongst nature and visited a museum dedicated to the freedom fighter, Sane Guruji. There we gathered Sane Guruji's work in the freedom struggle, for the working class and towards caste eradication as being motivated by his strong beliefs in Civil rights and justice. With this background, it was very interesting to learn that he had pursued his master's study in the discipline of philosophy.

Later that evening, after dinner, we attended an immersing talk on Vulture conservation by the conservationist Mr.Sagar Mestri. He informed us of what we could do to conserve vulture populations which are declining at a frightening rate in India and also, our ecology more broadly. Mr Mestri's entertaining anecdotes and deft impressions kept everyone enthralled even after a long day.

Early morning on the last day of the tour, we had the opportunity of going on a nature trail, guided by Mr Mestri himself. He identified the calls of different birds and even imitated their calls.

After breakfast, we left for Aakar pot art studio in Indapur, the most anticipated item on the itinerary. There, we were met by Mr.Rajesh Kulkarni, the owner of the

studio. His story of coming to a quaint art like pottery was inspiring and listening to him talk passionately about creating something with his hands and it being meditative was reminiscent of a minimal, Epicurean way of life where one works, creating things in small groups or alone with a feeling they are able to in one way or another, help the betterment of society.

We were also deeply impressed by his ability to represent abstract concepts in clay, giving them physical dimensions.

After this stimulating discussion, we were allowed a tour of the studio and make our own pots, masks and other items with clay. After lunch, we started back to Mumbai and the four-day tour came to an end.

The journey was enriching, eye-opening and at times, very challenging but it achieved what it set out to do, to expose us to the world beyond our bubbles, understand various socio-economic and cultural dimensions, and ultimately to question and challenge our own selves constantly.

Srinidhi BV
TYBA Philosophy
Roll No. 311

18
20

Evaluated by Kamale
Dr. Kamale Srinivas
Asst. Prof.
Dept. of Philosophy



SIES

RISE WITH EDUCATION

Sion(W), Mumbai – 400022

**College of Arts,
Science &
Commerce**

Program: B.Sc.

Course: Microbiology

Syllabus for S.Y.B.Sc.

To be implemented from 2018-2019

Section-2	Environmental Microbiology (Practicals Based On Unit-I,II & III Of SIUSMIC-32)		
	<ol style="list-style-type: none"> 1. Enumeration of microorganisms in air and study of its load after fumigation 2. Study of air microflora and determination of sedimentation rate 3. Routine analysis of water: <ol style="list-style-type: none"> a. Standard Plate Count b. Detection of Coliforms in water: Presumptive Test, Confirmed Test and Completed Test c. Rapid Detection of E.coli by MUG Technique (Demonstration) 4. Waste water analysis: <ol style="list-style-type: none"> a. Study of microbial flora in raw and treated sewage 	1 credit (45 lectures)	Self Study (45)

8

	<ol style="list-style-type: none"> b. Determination of total solids in wastewater c. Determination of BOD and COD of wastewater 5. Total viable count of soil microflora 6. Isolation of bacteria, Actinomycetes and fungi from soil 7. Enrichment and isolation of Nitrosifiers, Nitrifiers, Cellulose degraders, Sulphate reducers and Phosphate solubilisers from soil 8. Winogradskys column 9. Visit to a sewage treatment plant or water purification plant 		
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SIUSMICP-4	PRACTICALS	2 Credits	
Section-1	Metabolism & Basic Analytical Techniques (Practicals Based On Unit-I,II & III Of SIUSMIC-41)	1 Credit (45 lectures)	Self Study (45)
	<ol style="list-style-type: none"> 1. Problems on bioenergetics to calculate the Keq.; Gibbs energy , enthalpy, etc. . 2. Isolation of amylase , protease , lipase producers. 3. Extracellular production of invertase from yeast. 4. Effect of pH, Temp, substrate and enzyme concentration on activity of invertase. 5. Determination of Km and Vmax of an enzyme. 6. Separation and identification of amino acids and sugars by ascending paper chromatography. 7. Density gradient centrifugation. 	1 Credit (45 lectures)	
Section-2	Industrial, Food & Dairy microbiology (Practicals Based On Unit-I,II & III Of SIUSMIC-42)		Self Study (45)
	<ol style="list-style-type: none"> 1. Crowded plate technique 2. Antibiotic producer screening by Wilkins overlay method 3. Antibiotic spectrum determination (streak/strip) 4. Isolation of food spoilage agent: <ol style="list-style-type: none"> a) Fruit/Vegetable- Physical & Microscopic & Pectinolytic agent b) Meat - Proteolytic, lipolytic, sacchrolytic 5. Determination of TDT and TDP 6. Determination of Salt and sugar tolerance 7. Determination of MIC of a Chemical preservative 8. Visit to Food/Dairy industry 9. RPT of Milk – RRT, MBRT, DMC 10. Microbiological Quality Control of Milk as per BIS/FSSAI 11. Analysis of Cheese, Paneer, Butter, Yogurt/curd as per BIS/FSSAI (Group experiment) 12. Solid state fermentations (group experiment) 	1 Credit (45 lectures)	



SIES

RISE WITH EDUCATION

Sion(W), Mumbai – 400022

**College of Arts,
Science &
Commerce**

**Program: B.Sc.
Course: Microbiology
Syllabus for T.Y.B.Sc.
To be implemented from 2018-2019**

**(Credit Based Semester and Grading System with
effect from the academic year 2018–2019)**

COURSE CODE: SIUSMICP06

[PRACTICALS BASED ON SIUSMIC3; CREDITS-15, L- 60, NOTIONAL PERIODS-15]

1. Isolation and study of Bioluminescent organisms
2. Study of oxidative and fermentative metabolism
3. Qualitative and Quantitative assay of Phosphatase
4. Detection of organic acids by TLC
5. Study of Homo and Hetero fermentation
6. Glucose detection by GOD/POD
7. β galactosidase activity

COURSE CODE: SIUSMICP06

[PRACTICALS BASED ON SIUSMIC4, CREDITS -15, L- 60, NOTIONAL PERIODS-15]

1. Alcohol fermentation.-
 - a) Efficiency of fermentation
 - b) Alcohol tolerance for yeast.
 - c) Sugar tolerance for yeast.
 - d) Chemical estimation – Sugar by Cole’s method
 - e) Chemical estimation – Alcohol
2. Gradient plate technique for analogue resistant mutants.
3. Production of amylase- detection, shake flask or solid substrate cultivation and estimation. (Qualitative)
4. Industrial visit

SEMESTER V: TEXT BOOKS AND REFERENCE BOOKS

SIUSMIC51: Text books

1. Peter J. Russell (2006), “Genetics-A molecular approach”, 2nded.
2. Benjamin A. Pierce (2008), “Genetics a conceptual approach”, 3rded, W. H. Freeman and company.
3. R. H. Tamarin, (2004), “Principles of genetics”, Tata McGrawHill.
4. D. Nelson and M Cox, (2005), “Lehninger’s Principles of biochemistry”, 4thed, Macmillan worth Publishers.
5. M Madigan, J Martinko, J Parkar, (2009), “Brock Biology of microorganisms”, 12thed., Pearson Education International.
6. Fairbanks and Anderson, (1999), “Genetics”, Wadsworth Publishing Company.
7. Prescott, Harley and Klein, “Microbiology”, 7th edition Mc Graw Hill international edition.
8. Robert Weaver, “Molecular biology”, , 3rd edn. Mc Graw Hill international edition.
9. Nancy Trun and Jarine Trempy, (2004), “Fundamental bacterial genetics”, Blackwell Publishing
10. Snustad, Simmons, “Principles of genetics”, 3rdedn. John Wiley & sons, Inc.