

# SCIENCE ACADEMIES' EDUCATION PROGRAMME

SEP/RC/June/2019

03 December 2018

## JOINT SCIENCE EDUCATION PANEL

### Indian Academy of Sciences

Murthy, M.R.N.  
(Chairman)  
Kanharem D.G.  
(Co-Chairman)  
Arunan, E.  
Bachhawat, A. K.  
Balakrishnan, V.  
Chattopadhyay, Nitin  
Dhar, Deepak  
Mukunda, N.  
Radhakrishnan, T. P.  
Rangarajan, Govindan  
Saidapur, S.K.  
Sankaran, P.  
Satheesh, S.K.  
Sebastian, K. L.  
Sengupta, Pulak  
Subramaniam,  
Annapurni

### Indian National Science Academy

Chattaraj, P. K.  
Chaudhuri, Probal  
Ghosh, Amit  
Goswami, J.N.

### The National Academy of Sciences, India

Dimri, V.P.  
Khurana, Paramjit  
Misra, Gadadhar  
Mittal, J.P.

### Contact Address

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Dr R.H. Ladda  
Ex. Principal,  
Dayananda Science College  
Latur - 413 531

Sub: Refresher Course in Biological Sciences "Botany" at  
Dayananda Science College, Latur during 10-24 June 2019.

Dear Dr Ladda,

This has reference to your letter forwarding a proposal and budget for organizing a Refresher Course in Dayananda Science College, Latur. The Joint Science Education Panel of the three Academies will be happy to sponsor and support the Refresher Course. We note that Prof. S.R. Yadav (Shivaji University, Kolhapur) will be the Course Director and you will be the Course Co-ordinator.

- (a) Your budget of Rs 7,68,250/- (excluding TA of out station participants and Resource Persons) for 35 participants has been approved by the Science Education Panel. The TA claims will be settled as per eligibility (air fare by AIR INDIA only for resource persons who are over 60 years of age). For outstation participants 3-tier A/C train fare + Rs 400 incidentals. However, the TA claims must be settled by the Coordinator and tickets submitted along with TA bill for settlement including the detailed report and statement of expenditure. The budget is sanctioned as per our guidelines. **Please note that extra expenditure from the sanctioned budget heads to be met by the host institution.**
- (b) Please note that only the names of Convener and Coordinator of the Workshop should be included in brochure/invitation etc. Names of members of the management, organizing committees, patrons etc should be strictly avoided.
- (c) As the Refresher Course is an all India one, it has to be advertised in our journals **RESONANCE** and **CURRENT SCIENCE** (copy of a typical announcement is attached). Please send us a draft of your announcement.
- (d) Applications should be submitted online through a link which will be available in our website. The Course Director and Coordinator will be provided a user-id/password to enable them to view the applications and make the selections.
- (e) Refresher Courses are sponsored and supported by the three National Science Academies - IASc, INSA and NASI. The names of INDIAN ACADEMY OF SCIENCES (BANGALORE), INDIAN NATIONAL SCIENCE ACADEMY (NEW DELHI) and THE NATIONAL ACADEMY OF



Indian Academy  
of Sciences,  
Bengaluru



Indian National  
Science Academy,  
New Delhi



The National Academy  
of Sciences, India  
Allahabad

SCIENCES, INDIA (ALLAHABAD) should therefore be mentioned in all publicity material such as programme sheet, invitation cards, etc.

- (f) The Course should be called "Science Academies' Refresher Course in Biological Sciences "Botany".
- (g) Please send 4-5 copies of the printed programme when ready.
- (h) Funds for organizing the Course can be sent as an advance by electronic transfer. This can be sent after a bank account is opened and the following details are provided to us:

1. Name of the Bank:
2. Name of the Branch:
3. Account No.:
4. Name of the Account Holder  
(in the name of Refresher Course);
5. IFSC – code (for Non-SBI accounts)

If necessary, an authorization letter from the Academy to the bank to open the Savings Bank account can be sent to you after we hear from you.

- (i) The audited expenditure statement/utilization certificate duly signed by competent authority (CA or Financial Controller) to be sent along with the report, once the Course is over. This is required for the Audit compliance.

- (j) A CD containing the resource materials has to be made available at the Academy website. The Academy would like to make the educational material made for the course available to a large audience at its website, Hence a CD containing the material (without infringement on the copyright issues) has to be made available by the course director to the Academy.

Please go ahead with organizing the Course in consultation with Prof. S.R. Ydav and keep in touch with the Academy about the progress.

Best wishes,

Yours sincerely,



C.S. Ravi Kumar  
Coordinator

Science Education Programme



## **Science Academies' Refresher Course in Botany**

**Dayanand Science College, Latur (Maharashtra)**

**10<sup>th</sup> June to 24<sup>th</sup> June, 2019**

**Sponsored by Indian Academy Of Sciences, Bangalore**

**Indian National Science Academy, New Delhi The National Academy of Science, India,  
Allahabad In Collaboration with Dayanand Science College, Latur (Maharashtra)**

## **REPORT**

**Registration:** - The Registration of the participant Teachers started on 10<sup>th</sup> June, 2019 at 9.00 am. In Registration Bag, Pen, Register, timetable and Broucher etc were issued to all the registered participants in all 26. After the Breakfast self introduction was given by all the participants in the Seminar Hall of Dayanand Science college, Latur (Maharashtra).

The Refresher Course in Botany for all India Science Academies Two Week's is entitled for CAS (Promotion) of Senior College Teachers told to them.

The refresher course was inaugurated by the course Director Prof. Dr. S. R. Yadav, from Shivaji University Kolhapur and the Convener of the Course Principal of Dayanand Science College, Latur, Dr. J. S. Dargad, Head of the Department of Botany Dr. C. S. swami were present for this function.

Dr. S. R. Yadav has expressed the importance of this Refresher Course which is necessary for updating the knowledge of the Teachers & new methods to be used in teaching Dr. J. S. Dargad has expressed his views about the different programmes organized by this college during last five years and told to Teachers the importance of this Refresher Course Dr. C. S. Swami has given vote of thanks.





The News of Inaugural function given to State Level Papers cutting of the news of one of the paper is enclosed.

### Photograph of Lightning of Lamps



## Academic Programme

1. Immediately after the inaugural function Dr. S. R. Yadav has started his first lecture . After first lecture the lunch was provided to all the participants and then Dr. Dr. S. R. Yadav has started his afternoon secession periods. He has engaged 9 Periods in all.



Dr. S. R. Yadav delivering lecture.

2. The next day on 11<sup>th</sup> June 2019 the lectures have been started as per the Time-Table. The Topics given by the Resource Persons earlier were taken up by all the resource persons. The content material of their Topics were given in C. D. which is enclosed.

Photograph of Dr. Bernard F. Rodrigues is given here while teaching his Topics in the seminar hall only.





He has engaged 8 Periods in all in Three days.

3. Then Resource person Dr. Dhabe has delivered his lectures Photograph of Dr. Arvind Dhable while delivering his lectures is shown here. He has engaged 8 Lectures in four days .



4. Dr Raghavendra R. Rao has started his lectures on 14.06.2019 on the given Topics. Participants have asked questions as his lectures were interesting and knowledgeable.



5. Dr. Sabita Rani has started her lectures on genetics and related Topics for three days.



6. Dr. B. N. Reddy have delivered 7 lectures and had an interaction with the participants. He has given his book and asked to get the Xerox copies of his few pages and were circulated to the participants for their future study. Participants were enriched with his lectures having advanced ideas.





7. On 20.06.2019 Dr. T. Shrinivasu has started his lectures on different Topics. Totally he has delivered 11 lecture in five days.





8. The last Resource person was Dr. Avinash Ade he has delivered 8 lectures in all in four days Dr. Avinash Ade when he was teaching his one of the Topic.



We have received in all 75 applications out of which we have selected 30 from outstation participants and local 4 After few days 5 have refused to join and on 8<sup>th</sup> June 4 more have refused and on 10<sup>th</sup> June 19 Participants from outstation and 7 participants from local have registered for joining the course In previous three Refresher Courses we have the same experience which we have organized in our college. We could not complete the quota of 35. Participants (25+10) in one of these Refresher Courses 1) Physics 2) Chemistry 3) Mathematics and now this is the fourth in Botany. This is perhaps because there is in last 7 to 8 years in any colleges no recruitment and 3 out of State Participant have registered and remaining from all over Maharashtra

**(enclosed Copy of Time – Table)**

## Non Academic Report

The wide publicity was given for this Refresher Course in Botany by printing Broachers 500 well in advance and were sent to different 500 colleges and as usual the announcement was published in Science Academes magazines mirror and Resonance in the month of Jan. 2019 and also on website. Samples of Brouchers, invitation cards Photographs are enclosed herewith. Also C. D. containing PPT of all the Material taught in the Class room is enclosed..

Excursion Tour was arranged on 23.06.2019 some photographs of this Tour are also enclosed. Seminar by Participant teachers was also arranged on 20.06.2019. The Chairperson for this Seminar was Prof. P. M. Warad Ex. Head of Dept. of Botany was present in Library visit the Books were distributed to all Participants and also Books available in the Library were shown to them.











Photo of excursion Tour













In Valedictory Function President, Secretary of Dayanand Education society Laxmirmamanji Lahoti and Rameshji Biyani respectively were present. The Certificates and common Photograph were distributed to all participants Four participants have expressed their views about this Refresher Course in botany. Because of particular subject participants have shown much interest as per their opinion.



The Science Academies Refresher Course helped the teachers to improve their knowledge of the subject. They have interacted with all the eight Resource persons. List of all the participant teachers is enclosed.

**Acknowledgement :-** I have expressed vote of thanks to the participant teachers as they have shown much interest in all the activities of the programme. I must express vote of thanks to the coordinator of the Academy Ravikumar C. S. by providing funds in crucial time when the funds were not available with Academy. Thanks to Science Education Panel for sanctioning my proposal and special thanks to K. Geetha Madam having given all the information which I have enquired time to time Thanks to Indian Academy of Sciences Bangalore for providing funds.

### This refresher course has good impact on the Participants

#### **List of Participants :-**

<b>Sr. No.</b>	<b>Candidates Names</b>	<b>Place and Address</b>	<b>Email ID</b>	<b>Mobile No.</b>
1	DATTA CHAMLE	Department of Botany, Sharda Mahavidyalaya, Near Civil Hospital, Subhash Road, Parbhani	<a href="mailto:drchamle@gmail.com">drchamle@gmail.com</a>	9422734327
2	S G GHANE	Department of Botany, Shivaji University, Vidyanagar Maharashtra, Kolhapur	<a href="mailto:sgg.botany@unishivaji.ac.in">sgg.botany@unishivaji.ac.in</a>	9011045084
3	DILIPKUMAR UNDIRWADE	C/O, B.P. ARTS, S.M.A. SCI. & K.K.C. COM. COLLEGE, DHULE ROAD, CHALISGAON DIST: JALGAON Maharashtra	<a href="mailto:dckumar82@gmail.com">dckumar82@gmail.com</a>	9423063637
4	RAHUL ZANAN	Department of Botany, Elphinstone College, 156, M.G. Road, Fort, Mumbai 400032 Maharashtra	<a href="mailto:rahulzanan@gmail.com">rahulzanan@gmail.com</a>	9689934273
5	RADHA CHAUHAN	Botany Department, Post Graduate Government College for Girls Sector 42 Chandigarh	<a href="mailto:radhachauhann@gmail.com">radhachauhann@gmail.com</a>	9876079956
6	SHIVPRASAD MAHADKAR	Department of Botany, Dr. S. D. Devsey Arts College and Commerce College and Science College, Wada, Maharashtra	<a href="mailto:mshivprasad007@gmail.com">mshivprasad007@gmail.com</a>	9422555779
7	MEGHA GAWADE	Department of Botany, Wada College Wada 421303	<a href="mailto:ranemegha63@gmail.com">ranemegha63@gmail.com</a>	7507115738
8	PRADIP PATIL	Department of Botany, KVPS Kisan Arts, Commerce & Science College Parola Dist Jalgaon	<a href="mailto:patilpradip@yahoo.com">patilpradip@yahoo.com</a>	9850106901



9	SUMAN KUMAR RATNAMPALLY	H.No. 5-295,PLOT No. 9&10, LAXMI NILAYAM, VITTAL ENCLAVE, HASMATHPET,OLD BOWENPALLY, SECUNDRABAD,TELANGANA- 500011	<a href="mailto:sumanvandy2008@gmail.com">sumanvandy2008@gmail.com</a>	9490017355
10	SHRIMANT RAUT	Department of Botany, Pratibha Niketan Mahavidyalaya, Banda Ghat Road, Vazirabad Nanded.	<a href="mailto:rshrimant@gmail.com">rshrimant@gmail.com</a>	8623801255
11	TUKARAM GITTE	Khandoba Nagar , Ganeshpar Road, Parali Vaijenath, Dist. Beed	<a href="mailto:tuka.gitte@gmail.com">tuka.gitte@gmail.com</a>	9421488221
12	DR. VIKRAM MASAL	Dapoli Urban bank Senior Science College ,Dapoli. A/p and Tal Dapoli Dist: Ratnagiri. (Maharashtra).PIN :415712	<a href="mailto:masalvikram@gmail.com">masalvikram@gmail.com</a>	9421135926
13	NARAYANAPER UMAL RAMESH	Assistant Professor PG & Research Department of Botany, Government Arts College for Men, Krishnagiri - 635 001- Tamil Nadu	<a href="mailto:nprg@rediffmail.com">nprg@rediffmail.com</a>	9489150961
14	KADAM ASHA	C/o Gajanan Namdev Sawant, Samarth nagar, Pipeline road, behind Sagar hotel, Taluka and District -Ahmednagar.	<a href="mailto:ashakadam16@gmail.com">ashakadam16@gmail.com</a>	9503407997
15	SMITA BASOLE	Dept. Of Botany Balbhim College , Beed	<a href="mailto:smitabasole21@gmail.com">smitabasole21@gmail.com</a>	9764799426
16	DAMAJI BHISE	10/5 Saikrupa Heights, opposite to Police Head Quarter, New Pachchha Peth Solapur	<a href="mailto:damajibhise1982@gmail.com">damajibhise1982@gmail.com</a>	9112115890
17	KIRAN MORE	Babre Layout, Akola Bypass, Behind Ganesh Temple, Mangrulpir	<a href="mailto:kmore1914@gmail.com">kmore1914@gmail.com</a>	9689081542
18	WALAY TAGADE	C. J. Patel College, Tirora Khairlanji Rd Tirora Dist- 441911	<a href="mailto:walaytagade@gmail.com">walaytagade@gmail.com</a>	7378714502
19	ARCHANA CHAUDHARI	60, INDIRA COLONY , GONDUR ROAD,, NEAR B.S.N.L EXCHANGE, DEVPUR, DHULE	<a href="mailto:archanachaudhari74@gmail.com">archanachaudhari74@gmail.com</a>	9404192809
20	SADASHIV SHINDE	Dept. of Botany, Rajarshi Shahu Mahavidyalaya, Latur (Autonomous)	<a href="mailto:sadashivanshinde@gmail.com">sadashivanshinde@gmail.com</a>	9922086789
21	MANISHA GURME	DEPT OF BOTONY DAYANAND SCIENCE COLLEGE LATUR	<a href="mailto:manishgurme@gmail.com">manishgurme@gmail.com</a>	9175595118
22	DEEPAK CHATE	PRASAD BANGLOW SAHYOG COLONY NEAR SHANI MANDIR RING ROAD LATUR	<a href="mailto:drdeepakchate@gmail.com">drdeepakchate@gmail.com</a>	8459453880

23	SHILPA MEHTRE KISHANRAO	Shree Nagar, Barshi Road, Latur	<a href="mailto:shilpalahoti1@gmail.com">shilpalahoti1@gmail.com</a>	9975811373
24	SHIVANGIKAR PRANAV PRASHANT	Shivangikar Niwas, Pochamma Galli, Latur	<a href="mailto:Pran_pps@yahoo.in">Pran_pps@yahoo.in</a>	9421480919
25	CHANDRASHEK HAR SIDRAM SWAMI	DEPT OF BOTONY DAYANAND SCIENCE COLLEGE LATUR	<a href="mailto:Swamics2806@gmail.com">Swamics2806@gmail.com</a>	9421986880
26	SHIVAJI KUNDLIK ALANE	DEPT OF BOTONY DAYANAND SCIENCE COLLEGE LATUR	<a href="mailto:Shivaji.alane@gmail.com">Shivaji.alane@gmail.com</a>	9423735538





## Science Academies

### Refresher Course on Botany - 2019

Dayanand Science College, Latur. (M.S.)

#### Time-Table

Day & Date	Period - I	Period - II	12 to 12.15	Period - III	1.30 to 2.30	Period - IV	3.45 to 4.15	Period - V
Time	9.30 - 10.45	10.45 - 12		12.15 - 1.30		2.30 - 3.45		4.15 - 5.30
10/06/2019	<b>Registration, Inaugural Function &amp; Photo session and self introduction</b>		Interval	Dr. S. R. Yadav FNA, FMASc, FIAAT, UGC BSR Faculty Fellow, Professor, Department of Botany, Shivaji University, Kolhapur. 416 004 (MS)India.	Lunch Break	Dr. S. R. Yadav FNA, FMASc, FIAAT, UGC BSR Faculty Fellow, Professor, Department of Botany, Shivaji University, Kolhapur. 416 004 (MS)India.	Tea Break	Dr. S. R. Yadav FNA, FMASc, FIAAT, UGC BSR Faculty Fellow, Professor, Department of Botany, Shivaji University, Kolhapur. 416 004 (MS)India.
Monday				<b>APG System of Plant Classification</b>		<b>Plant Taxonomy</b>		<b>Concept of Species</b>
11/06/2019	Dr. S. R. Yadav FNA, FMASc, FIAAT, UGC BSR Faculty Fellow, Professor, Department of Botany, Shivaji University, Kolhapur. 416 004 (MS)India.	Prof. Bernard Felinov Rodrigues, Professor (HAG) Goa's Premier University, Goa,	Interval	Dr. S. R. Yadav FNA, FMASc, FIAAT, UGC BSR Faculty Fellow, Professor, Department of Botany, Shivaji University, Kolhapur. 416 004 (MS)India.	Lunch Break	Dr. S. R. Yadav FNA, FMASc, FIAAT, UGC BSR Faculty Fellow, Professor, Department of Botany, Shivaji University, Kolhapur. 416 004 (MS)India.	Tea Break	Prof. Bernard Felinov Rodrigues, Professor (HAG) Goa's Premier University, Goa,
Tuesday	<b>Hierarchical Taxa</b>	<b>Mycology &amp; Plant Pathology</b>		<b>Biological Nomenclature</b>		<b>Biological Nomenclature</b>		<b>Biotechnology &amp; Plant Tissue Culture</b>
12/06/2019	Prof. Bernard Felinov Rodrigues, Professor (HAG) Goa's Premier University, Goa,	Dr. S. R. Yadav FNA, FMASc, FIAAT, UGC BSR Faculty Fellow, Professor, Department of Botany, Shivaji University, Kolhapur. 416 004 (MS)India.	Interval	Prof. Bernard Felinov Rodrigues, Professor (HAG) Goa's Premier University, Goa,	Lunch Break	Dr. S. R. Yadav FNA, FMASc, FIAAT, UGC BSR Faculty Fellow, Professor, Department of Botany, Shivaji University, Kolhapur. 416 004 (MS)India.	Tea Break	Dr. S. R. Yadav FNA, FMASc, FIAAT, UGC BSR Faculty Fellow, Professor, Department of Botany, Shivaji University, Kolhapur. 416 004 (MS)India.
Wednesday	<b>Applications of tissue culture in plant breeding</b>	<b>Classical and Quantitative methods of Taxonomy of plants</b>		<b>Agriculture, Medicine, Horticulture, Forestry &amp; Industry</b>		<b>Outline of plant classification (1)</b>		<b>Outline of plant classification (2)</b>

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Time	9.30 - 10.45	10.45 - 12		12.15 - 1.30		2.30 - 3.45		4.15 - 5.30
13/06/2019	Prof. Bernard Felinov Rodrigues, Professor (HAG) Goa's Premier University, Goa,	Prof. Arvind S. Dhabe Professor and Head, Department of Botany Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004 (M.S.) India	Interval	Prof. Bernard Felinov Rodrigues, Professor (HAG) Goa's Premier University, Goa,	Lunch Break	Prof. Arvind S. Dhabe Professor and Head, Department of Botany Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004 (M.S.) India	Tea Break	Prof. Bernard Felinov Rodrigues, Professor (HAG) Goa's Premier University, Goa,
Thursday	Transgenic plants	Species concepts Higher ranks		Plant breeding and improvement of crop plants		Nomenclature		Role of induced mutations in plant breeding, Hybridization techniques in crop plants
14/06/2019	Prof. Arvind S. Dhabe Professor and Head, Department of Botany Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004 (M.S.) India	Dr. R. R. Rao, Ph.D., FBS, FES, FIAAT, FNRS, FLS, FNAsc., FAsc., FNA CSIR Emeritus Scientist, Bangalore INSA Honorary Scientist, Bangalore		Prof. Arvind S. Dhabe Professor and Head, Department of Botany Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004 (M.S.) India		Dr. R. R. Rao, Ph.D., FBS, FES, FIAAT, FNRS, FLS, FNAsc., FAsc., FNA CSIR Emeritus Scientist, Bangalore INSA Honorary Scientist, Bangalore		Dr. R. R. Rao, Ph.D., FBS, FES, FIAAT, FNRS, FLS, FNAsc., FAsc., FNA CSIR Emeritus Scientist, Bangalore INSA Honorary Scientist, Bangalore
Friday	Ethno botany	Changing scenario, current status and future prospects		Ethno botany and its importance		Herbarium: Concept, functions and problems in management		Herbarium and its making (Methodology of plant collections for herbarium)
15/06/2019	Dr. R. R. Rao, Ph.D., FBS, FES, FIAAT, FNRS, FLS, FNAsc., FAsc., FNA CSIR Emeritus Scientist, Bangalore INSA Honorary Scientist, Bangalore	Prof. Arvind S. Dhabe Professor and Head, Department of Botany Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004 (M.S.) India		Dr. R. R. Rao, Ph.D., FBS, FES, FIAAT, FNRS, FLS, FNAsc., FAsc., FNA CSIR Emeritus Scientist, Bangalore INSA Honorary Scientist, Bangalore		Prof. Arvind S. Dhabe Professor and Head, Department of Botany Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004 (M.S.) India		Dr. R. R. Rao, Ph.D., FBS, FES, FIAAT, FNRS, FLS, FNAsc., FAsc., FNA CSIR Emeritus Scientist, Bangalore INSA Honorary Scientist, Bangalore
Saturday	Changing trends in Taxonomy	Medicinal Plants	Why frequent changes in plant names? Some aspects of Botanical nomenclature	Uses of Medicinal Plants	Phytogeography with reference to India			
16/06/2019	Prof. Arvind S. Dhabe Professor and Head, Department of Botany Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004 (M.S.) India	Dr. R. R. Rao, Ph.D., FBS, FES, FIAAT, FNRS, FLS, FNAsc., FAsc., FNA CSIR Emeritus Scientist, Bangalore INSA Honorary Scientist, Bangalore	Dr. R. R. Rao, Ph.D., FBS, FES, FIAAT, FNRS, FLS, FNAsc., FAsc., FNA CSIR Emeritus Scientist, Bangalore INSA Honorary Scientist, Bangalore	Prof. Arvind S. Dhabe Professor and Head, Department of Botany Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004 (M.S.) India	Prof. Arvind S. Dhabe Professor and Head, Department of Botany Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004 (M.S.) India			
Sunday	Chemotaxonomy of genus <i>Alysicarpus</i>	Plant classification systems	Bioprospection, the role of taxonomists and ethnobotanists	Taxonomy of genus <i>Terminalia</i>	Ayurved - ancient indian system of Medicine			
17/06/2019	Dr A Sabitha Rani, Double Gold Medalist and FTAsc Dept. of Botany, Osmania University, College for Women Hyderabad	Prof. B. N. Reddy Best Teacher Awardee FTAsc, Ex-Head, Dept. of Botany, Osmania University Hyderabad-500 007.	Dr A Sabitha Rani, Double Gold Medalist and FTAsc Dept. of Botany, Osmania University, College for Women Hyderabad	Prof. B. N. Reddy Best Teacher Awardee FTAsc, Ex-Head, Dept. of Botany, Osmania University Hyderabad-500 007.	Dr A Sabitha Rani, Double Gold Medalist and FTAsc Dept. of Botany, Osmania University, College for Women Hyderabad			



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Time	9.30 - 10.45	10.45 - 12		12.15 - 1.30		2.30 - 3.45		4.15 - 5.30
<b>Monday</b>	<b>Prokaryotic &amp; Eukaryotic Cell Structure</b>	<b>Role of fungi as food and feed</b>	<b>Interval</b>	<b>Mutations – Types and applications</b>	<b>Lunch Break</b>	<b>Mycorrhiza as biofertilizers</b>	<b>Tea Break</b>	<b>Cell-cycle and cell – division</b>
18/06/2019	Prof. B. N. Reddy Best Teacher Awardee FTASc, Ex-Head, Dept. of Botany, Osmania University Hyderabad-500 007.	Dr A Sabitha Rani, Double Gold Medalist and FTASc Dept. of Botany, Osmania University, College for Women Hyderabad		Prof. B. N. Reddy Best Teacher Awardee FTASc, Ex-Head, Dept. of Botany, Osmania University Hyderabad-500 007.		Dr A Sabitha Rani, Double Gold Medalist and FTASc Dept. of Botany, Osmania University, College for Women Hyderabad		Dr A Sabitha Rani, Double Gold Medalist and FTASc Dept. of Botany, Osmania University, College for Women Hyderabad
<b>Tuesday</b>	<b>Fungi as Bio control agents</b>	<b>Process of protein synthesis, Biomolecules in plants</b>		<b>Effect of environment on pathogenesis in plants</b>		<b>Mendel and his work, Interaction of Genes, Linkage and Crossing over</b>		<b>Protoplast Culture &amp; Somatic hybridization</b>
19/06/2019	Prof. B. N. Reddy Best Teacher Awardee FTASc, Ex-Head, Dept. of Botany, Osmania University	Dr A Sabitha Rani, Double Gold Medalist and FTASc Dept. of Botany, Osmania University, College for Women Hyderabad		Prof. B. N. Reddy Best Teacher Awardee FTASc, Ex-Head, Dept. of Botany, Osmania University		Dr A Sabitha Rani, Double Gold Medalist and FTASc Dept. of Botany, Osmania University, College for Women Hyderabad		Prof. B. N. Reddy Best Teacher Awardee FTASc, Ex-Head, Dept. of Botany, Osmania University
<b>Wednesday</b>	<b>Role of Fungi in industry</b>	<b>Technique of R DNA technology</b>		<b>Seed pathology General Account</b>		<b>Agrobacterium Mediated gene transfer in plants</b>		<b>Host Pathogen interaction</b>
20/06/2019	Dr. T. Srinivasu Prof. & Head Chairman of BOS Botany Member, RRC Member, Academic Council, RTMN University, Nagpur	Dr. T. Srinivasu Prof. & Head Chairman of BOS Botany Member, RRC Member, Academic Council, RTMN University, Nagpur		Dr. T. Srinivasu Prof. & Head Chairman of BOS Botany Member, RRC Member, Academic Council, RTMN University, Nagpur		Seminar by Participant, Chairperson Prof. P. M. Warad, Ex-Head Botany Department, Omerga		<b>Visit To Library</b>
<b>Thursday</b>	<b>Polymerase chain reaction (1)</b>	<b>Polymerase chain reaction</b>		<b>Electrophoresis</b>				
21/06/2019	Dr. T. Srinivasu Prof. & Head Chairman of BOS Botany Member, RRC Member, Academic Council, RTMN University, Nagpur	Dr. Ade A. B. Prof. Department of Botany, S.P.P University, Pune		Dr. T. Srinivasu Prof. & Head Chairman of BOS Botany Member, RRC Member, Academic Council, RTMN University, Nagpur		Dr. Ade A. B. Prof. Department of Botany, S.P.P University, Pune		Dr. T. Srinivasu Prof. & Head Chairman of BOS Botany Member, RRC Member, Academic Council, RTMN University, Nagpur
<b>Friday</b>	<b>Mean, mode and median, Standard deviation and coefficient of variation,</b>	<b>Ecosystem and the Solid waste management</b>		<b>Mean, mode and median, Standard deviation and coefficient of variation,</b>		<b>Ecosystem and the Solid waste management</b>		<b>Global warming and ozone layer depletion</b>
22/06/2019	Dr. Ade A. B. Prof. Department of Botany, S.P.P University, Pune	Dr. T. Srinivasu Prof. & Head Chairman of BOS Botany Member, RRC Member, Academic Council, RTMN University, Nagpur		Dr. Ade A. B. Prof. Department of Botany, S.P.P University, Pune		Dr. T. Srinivasu Prof. & Head Chairman of BOS Botany Member, RRC Member, Academic Council, RTMN University, Nagpur		Dr. Ade A. B. Prof. Department of Botany, S.P.P University, Pune

Day & Date	Period - I	Period - II	12 to 12:15	Period - III	1.30 to 2.30	Period - IV	3.45 to 4.15	Period - V
	9.30 - 10.45	10.45 - 12		12.15 - 1.30		2.30 - 3.45		4.15 - 5.30
Saturday	Biogeochemical cycles and composting.	Global warming and ozone layer depletion		Biogeochemical cycles and composting.		Photoperiodism		Genotoxicity
23/06/2019	Dr. T. Srinivasu Prof. & Head Chairman of BOS Botany Member, RRC Member, Academic Council, RTMN University, Nagpur	Dr. Ade A. B. Prof. Department of Botany, S.P.P University, Pune	Interval	Dr. T. Srinivasu Prof. & Head Chairman of BOS Botany Member, RRC Member, Academic Council, RTMN University, Nagpur	Lunch Break	Excursion Tour		
Sunday	Biotic and Abiotic environmental factors	Aging and Senescence		Biotic and Abiotic environmental factors				
24/06/2019	Dr. T. Srinivasu Prof. & Head Chairman of BOS Botany Member, RRC Member, Academic Council, RTMN University, Nagpur	Dr. Ade A. B. Prof. Department of Botany, S.P.P University, Pune		Dr. Ade A. B. Prof. Department of Botany, S.P.P University, Pune		Valedictory function		
Monday	Southern and Western blotting	Population Ecology		Western Blotting				

  
 Co-ordinator  
 (Workshop & Refresher Course)  
 Dayanand Science College, Latur

  
 Principal  
 Dayanand Science College, Latur