

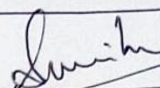
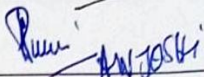
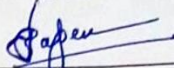
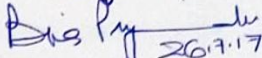
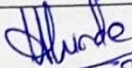
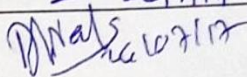
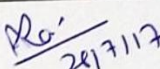
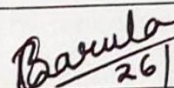
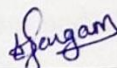
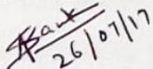
Meeting of Subject Board

Department of Botany

Venue: Physics Staff Room

Date: 26th July, 2017

Time: 1.00 pm

Sr. No.	Name	Designation	Signature
1	Dr. Sunita Shailajan	Head	
2	Dr. Ambika Joshi	Chairperson, BOS	
3	Dr. Suzan Eapen	Subject expert	
4	Dr. Bina Punjabi	Subject expert	 26/7/17
5	Dr. Rajendra Shinde	Subject expert	 26/7/17
6	Dr. D.G. Naik	Industry/ Research	 26/7/17
7	Dr. Aruna Rai	Special invitee	 26/7/17
8	Dr. Bhavna Narula	Senior faculty	 26/7/17
9	Ms. Saj Jangam	MSc Part II	
10	Ms. Anuprita Kank	TYBSc	 26/07/17

Subject Board Meeting

Department of Botany (26th July, 2017)

A meeting of subject board of Department of Botany was held on 26th July, 2017 under the Autonomous status of Ramnarain Ruia College, Matunga, Mumbai. The meeting held in Ramnarain Ruia College was attended by the following subject board members:

1. Dr. Sunita Shailajan (Chairperson and the head of the department, Ramnarain Ruia College, Mumbai)
2. Dr. Ambika Joshi (Subject Expert; Chairperson, BOS, University of Mumbai)
3. Dr. Rajendra Shinde (Subject Expert, Associate professor, St. Xavier's Autonomous College)
4. Dr. Bina Punjabi (Subject Expert, Former Principal, Gurunanak College, Sion)
5. Dr. Susan Eapen (Subject Expert, Retired Scientist, BARC)
6. Dr. Dattatray Naik (Retired Scientist, Agharkar Research Institute, Pune, Project coordinator, Maharashtra Education Society, Pune)
7. Dr. Bhavna Narula (Senior Faculty, Ramnarain Ruia College, Mumbai)(on rotation)
8. Dr. Jessy Pius (Senior Faculty, Ramnarain Ruia College, Mumbai)(on rotation)
9. Dr. Aruna Rai (Special Invitee for MSc Syllabus, Specialization: Cytogenetics)
10. Ms. Saj Jangam, MSc Part II student (Ramnarain Ruia College, Mumbai)
11. Ms. Anuprita Kank, TYBSc student (Ramnarain Ruia College, Mumbai)

Dr. Sunita Shailajan welcomed all members and commenced the meeting by introducing all the faculty members of Ramnarain Ruia College to the experts. The main agenda of the meeting was to discuss the reforms in curricula to make it more relevant and also bring in innovation in evaluation system for the benefit of students under the autonomous status of the college. All the subject board members actively participated in designing the syllabi (FYBSc, SYBSc, TYBSc, MSc Part I and MSc Part II) and gave valuable suggestions to improve the teaching, training and evaluation system. In accordance with the norms of University of Mumbai about the permissible limit of changes in syllabi (15%), required modifications were done in the existing syllabi. The points discussed in the meeting are as follows:

- TYBSC applied component (Horticulture and gardening), no major change in the syllabus. Soil less culture and mushroom cultivation has been added.

- **MSc Part I:**

- For MSc, Sem I, the members suggested that in paper IV, Unit IV, chemical/ biological/ patent abstracts should be added to check the novelty of the work.
- In Sem II syllabus, in paper IV, unit II and III, 'Dietetics' should be changed as 'Planning of Diet' and phytochemicals responsible for therapeutic efficacies.
- They further suggested that, in practicals, concept of vigour and vitality in seed physiology should be introduced.
- Five days workshop on statistical softwares by Mr. Vinay Deshpande can be arranged for students.
- Dr. Ambika Joshi suggested that in field exercises, particular spots should be visited in different seasons, wind directions can be studied and degradation of forests should be observed over the period of time.
- Further, it was also suggested that, analysis of water samples can be given as project for internal assessment (20 marks).
- Assignments given to the students should be checked for plagiarism (it should be less than 25%).

- **MSc Part II:**

- In Sem III, Paper I, Unit III: Strong and weak acids and bases should be added. More practice on determination of pH and buffers should be given to students.
- Further in unit IV of the same paper, GC-MS and NMR should be added. Interpretation of NMR spectra should be taught to students. 2D gel Electrophoresis can be removed or kept as demonstration.
- In Sem III, Paper III practicals (Plant Biotechnology): The members suggested that in the practical of 'Isolation of bioactive', 'its analysis using TLC' needs to be mentioned.
- In practicals, PCR should be added (demonstration can be given).
- Mention as 'Students will be selecting a suitable project in third semester approved by the head of the department and will be carried out in Semester IV'.

- **FYBSc:**

- In Sem II, Paper II, Unit III, the members have suggested that along with the study of functional foods like Onion, Garlic etc., plants with specific marker compounds having biological activity can be added.
- Further it was suggested that, anatomy and morphology of plants can be completed in FYBSc (Semester wise distribution) and no need to repeat thereafter.

- **SYBSc:**

- The chairperson of the meeting explained the changes done by the faculty in the syllabus and explained the rationale behind the changes.
- Dr. D. G. Naik suggested that, in Sem III, paper III, Unit I; Study of some secondary metabolites from major classes should be added.
- No other changes were suggested in the existing syllabus.

- **TYBSc:**

- The chairperson of the meeting explained the changes to the syllabus and highlighted the reasons of the same.
- The members suggested that in Sem V, Paper II Unit IV (Palynology), Recovery of pollen from honey can be added to explain the industrial production of pollens as an applied field.
- It was explained by the chairperson that the students will be given hands on experience on HPTLC and RP-HPLC during practical of evaluation of phytochemical markers from plants.
- In Sem V, paper IV, addition of 'using UV-Visible Spectrophotometer' has been suggested after the title Beer-Lambert's law.
- Dr Ambika Joshi suggested that in practical III of Sem V, 'BOD, COD and TDS' should be mentioned and acidity and alkalinity can be deleted.
- Dr. Rajendra Shinde suggested that in paper IV, Sem VI (Ethnobotany), book by 'Sudhanshu Kumar Jain' should be added.
- The members suggested that in practical IV, Sem VI, for mapping of sacred groves, students can be taken to Dapoli or Pune and 'extraction of essential oil using Clevenger should be added as hands on practical and not as a demonstration.

- For Sem IV, Paper I, Unit II: the members have suggested that, 'Column chromatography' should be added in theory and practical and for paper III, Unit I (Environmental Biotechnology): Dr. Susan Eapen insisted on the inclusion of Gene editing in MSc syllabus.

- **Evaluation system:**

- As per the College policy the distribution of marks will be 60 marks + 40 marks (internal).
- For TYBSc internals (40 marks), 20 marks will be on internal written test and remaining 20 marks can be evaluated on the basis of projects/ field visits/ reports with photo documentation/ assignments/ PowerPoint presentation/ E – tests etc.
- For MSc Internal Assessment (40 marks), 30 marks will be based on Seminar presentation/ Short project presentation / Photo-documentation report of field visit/ Industry visit report /Presentation based on research papers and references/ class tests etc. and 10 marks will be on continuous assessment on the basis of participation in departmental activities.
- In this academic year, certificate courses on chemoprofiling of plants using HPTLC and HPLC has been proposed for six days and experts from outside will be invited for the evaluation.
- Some questions set by outsiders (experts in that area) can be included in the final question paper.
- For TYBSc and MSc examinations, the examiner panel will have one internal and one external examiner.
- For the evaluation of projects, power point presentations followed by viva-voce should be conducted in addition to evaluation of project report.
- Paper assessment and moderation pattern will be as per the decision of the College.

Dr. Bina Punjabi emphasized on the fact that, initially the department should make fewer changes, take feedback from the students and then make changes accordingly. In case of any queries (as and when), it was unanimously decided that emails can be sent to the subject board members. The changes in syllabi and evaluation system discussed in the meeting were unanimously accepted by all subject board members. The meeting ended at 3.30 pm in a fruitful discussion and on a very encouraging note with the thanks to the chair.