

MINUTES OF THE SECOND MEETING OF THE BOARD OF STUDIES IN MATHEMATICS HELD ON 9th and 10th October 2015

The Chair called the meeting to order. Following agenda was presented.

Agenda

1. To approve the syllabi of Semester III and Semester IV for the academic year 2016-17.
2. Review of Semester I.
3. Any Other Business (A.O.B.)

Business was transacted as per agenda.

1.1 Discussion on syllabi

The members went through the syllabus of Algebra, Number Theory and Combinatorics and pointed that a lot more could be done in those fields. Hence three new additions Algebra II, Number Theory II and Combinatorics II were suggested. It was also suggested that these may replace the papers Operations research II, Advanced Statistics and Relativity.

The members suggested redistributing the papers for semesters III to VI

Paper wise, following points were discussed

1. Linear Algebra

Since the syllabus of this paper was not prepared as it was to be in the sem V, It was suggested that the syllabus of the current affiliated system is to be followed.

2. Pedagogy of mathematics

It was suggested by the members to include Historical development of mathematics. It was also suggested that along with remedial teaching to add techniques of accelerated teaching for advanced learners.

3. Operation Research

Since the syllabus of this paper was not prepared as it was to be in the sem V, a syllabus was created which included linear programming, simplex method, transportation problems, assignment problems and game theory.

4. Advanced Analysis

It was noticed by most members that the syllabus of this paper was too heavy and suggested to remove the module IV on Fourier Series. It was later concluded that the syllabus with Fourier Series be tried on experimental basis and the decision will be taken at a later meeting.

5. Computers for Mathematics

All the members noted this to be a very interesting paper. It was suggested that making presentations in LaTeX to be included and geogebra to be included too. Reference material for this paper was suggested.

6. Combinatorics I

It was suggested that unit V and unit VI be dropped and included in Combinatorics II. It was also suggested to add pigeon hole principle, Stirling numbers, exponential generating functions.

The syllabus of the two papers which were for 5th semester were also discussed and the following was suggested:

1. Graph Theory

Some changes in the syllabus was recommended and reference books were suggested

2. Functions of Several variables

Some minor additions like directional derivatives was suggested.

Some rearrangements of the content and additional references were suggested in each paper.

1.2 Review of semester I . Feedback was taken from the teachers and was suggested that , changes ,if any can be made after one more year.

1.3 Following Resolutions were made.

I] As suggested, following distribution of papers is to be adopted.

The Core papers

Sem III	Linear Algebra
Sem IV	Differential Equations
Sem V	Functions of Several Variables
Sem VI	Vector Analysis

The Elective papers

Sem III	Algebra I	Number Theory I	Numerical Methods	Pedagogy of Mathematics
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Sem IV	Operation Research	Advanced Analysis	Computers for Mathematics	Combinatorics I
Sem V	Algebra II	Number Theory II	Graph Theory	Metric Spaces
Sem VI	Advanced Differential Equations	Complex Analysis	Combinatorics II	Coding Theory and Cryptography

The papers for minor in mathematics

Sem III	Basic Real Analysis
Sem IV	Mathematical Analysis
Sem V	Pedagogy of Mathematics/ Number Theory I
Sem VI	Operation Research/ Differential Equations

II] All changes and additions as suggested were made in the syllabi and were accepted.

Following are the syllabi of papers for semester III and IV.

(NOTE: The minor papers for Semester III and IV are the major papers for Semester I and II)

The chairman thanked the members of Board of studies in Mathematics for their valuable contribution and active participation.

The meeting ended at .12:00. with a vote of thanks to the Chair.

The following members of the Board of Studies in Mathematics were present for the meeting:

1. Anand Masur - Chairman
2. Danelle Monteiro - Member Secretary
3. Dr. Vinayak Sholapurkar
4. Dr. Rajeev Sapre
5. Dr. Sudhir Ghorpade
6. Rován Vaz

Dr. Sayaji Hande, Dr.Y.S. Valaulikar and Rakhi Karapurkar conveyed their inability to attend the meeting.