Puranik Sadashiv R.
Head of Department,
Department of Mathematics,
Date: 12/03/2024.

To,
The Principal,
Tuljaram Chaturchand College, Baramati,
Baramati.

Subject: Report of the Board of Studies (Mathematics) Meeting.

Dear Sir,

I am writing to provide you with a comprehensive report on the recent Board of Studies (Mathematics) meeting that took place on March 12, 2024. The meeting was attended by the esteemed faculty members of the Department of Mathematics, dedicated student representatives, and distinguished members of the Board of Studies. We are thankful to have had the honorable presence of Dr. Anil Khairnar, Dr. Haribhau Bhapkar, Dr. Nitin Darkunde and Mr. Amit Patil.

The minutes of the previous meeting were reviewed and unanimously approved by the Board. Extensive discussions took place regarding the restructuring of the syllabus in accordance with the National Education Policy (NEP) 2020. The Board has worked diligently to revise and enhance the curriculum to align with these guidelines. Valuable feedback from students, teachers, parents, alumni, and employers was meticulously analyzed. Many suggestions and recommendations have been integrated into the curriculum to ensure its relevance and quality. The revised syllabus for S.Y.B.Sc., S.Y.B.Sc.(Comp.Sci.) and M.Sc.II - Semester-III (2023 Pattern NEP 2020 Pattern) and T.Y.B.Sc (2022 Pattern)- Semester V has been submitted for your perusal and approval. These syllabi have been designed to provide a contemporary and holistic education in mathematics, reflecting the latest educational policies and stakeholder inputs.

We would like to recommend that an honorarium be granted to the external members of the Board of Studies for their invaluable contributions to the meeting.

We extend our heartfelt gratitude for your continued support and guidance.

Yours sincerely,

Noted
27/03/24

Anekant Education Society's

Tuljaram Chaturchand College
of Arts, Science and Commerce,
Baramati

(Autonomous)

DEPARTMENT OF MATHEMATICS

(Faculty of Science and Technology)

Minutes of Board of Studies Meeting No.9

Date of Meeting: 12/03/2024

Venue: Department of Mathematics

March, 2024

Anekant Education Society's

Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati

(Autonomous)
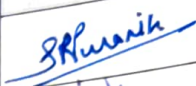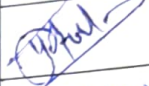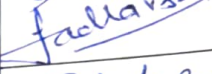
Department of Mathematics

AGENDA OF THE MEETING
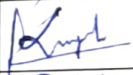
The agenda of the meeting included the following subjects:

1. To confirmation of the minutes of the previous meeting held on 23rd October 2023.
2. To design the structure of the S.Y.B.Sc. and M.Sc.-II as per NEP 2020, (2023 Pattern).
3. To design the syllabus for the S.Y.B.Sc., S.Y.B.Sc.(Comp. Sci.) and M.Sc.-II in accordance with NEP 2020, (2023 Pattern).
4. To design the structure for the T.Y.B.Sc. (Sem-V) according to 2022 pattern.
5. To discuss and incorporate the relevant feedback of the stakeholders (students, teacher, parents, alumni and employers) in the curriculum.
6. To discuss and approve the amendments (if any) in the syllabi of F.Y.B.Sc. and M.Sc.-I (NEP 2020, 2023 Pattern).
7. Any other matters with the permission of the chair.

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Department of Mathematics

The members listed below attended and actively contributed to the Board of Studies Mathematics meeting on March 12, 2024.

Sr. No.	Name	Designation	Sign
1	Mr. Sadashiv R. Puranik,	Chairman	SRPuranik
2	Ms. Varsha H. Shinde	Member	VHShinde
3	Dr. Prakash B. Fulari	Member	Fful
4	Dr. Shaila S. Jadhav	Member	Jadhav
5	Ms. Nikita R. Shinde	Member	Shindev
6	Ms. Sonali V. Kate	Member	Kate
7	Ms. Rupali T. Kadam	Member	Kmyl
8	Ms. Amruta D. Patil	Member	Patil
9	Mr. Sachin Y. Jadhav	Member	f.
10	Ms. Pratima B. Bhapkar	Member	bipkb
11	Dr. Anil S. Khairnar	Vice-Chancellor Nominee	Attended online
12.	Dr. Nitin S. Darkunde	Expert from other University	Attended online
13	Dr. Kishor D. Kucche	Expert from other University	—
14	Mr. Amit Patil	Industry Expert	Attended online
15	Dr. Haribhau R. Bhapkar	Meritorious Alumni	Attended Online
16	Ms. Pranali Jadhav	Student Representative	Online
17	Ms. Ankita Anpat	Student Representative	Online

MINUTES OF THE MEETING

1. **Confirmation of Minutes from Previous Meeting (23rd October 2023):**

   - The meeting commenced with a review of the minutes from the previous meeting held on 23rd October 2023. After careful consideration, the minutes were confirmed by the attendees.

2. **Designing the structure for the S.Y.B.Sc. and M.Sc.-II in accordance with the NEP 2020, (2023 Pattern):**
   - The committee engaged in a comprehensive discussion on the course structure for S.Y.B.Sc. and M.Sc.-II according to NEP 2020, (2023 Pattern) to be implemented from academic year 2024-25 and approved in unanimously which is given on page number 5 and 6.

3. **Preparation and Approval of Curriculum for S.Y.B.Sc., S.Y.B.Sc. (Comp. Sci.) and M.Sc.-II Mathematics Semester-III NEP 2020, (2023 Pattern):**

   - The committee proceeded to discuss and approve the curriculum for S.Y.B.Sc., S.Y.B.Sc. (Comp. Sci.) and M.Sc.-II Semester-III according to NEP 2020, (2023 Pattern) to be implemented from academic year 2024-25 which is given on page number 7.

   - Some reference books are suggested for better understanding of the subject and then syllabus approved unanimously to be implemented from academic year 2024-25.

4. **Designing the syllabus for T.Y.B.Sc. (Sem V) according to 2022 pattern:**
   - The committee discussed and approved the syllabus of T.Y.B.Sc. (Sem V) 2022 pattern unanimously to be implemented from academic year 2024-25.

5. **Incorporation of Stakeholder Feedback in the Curriculum:**

   - Stakeholders feedback is considered while designing the syllabus and committee discussed and approved with some minor changes.

   - The practical component for S.Y.B.Sc. should be conducted on computers to align with modern educational practices and enhance technical skills.

6. **Any other:**

   - The committee insisted to include Mathematics as mandatory course in B.Sc. Computer Science to all students.

Course & Credit Structure for S.Y.B.Sc. Mathematics (2023 Pattern as per NEP 2020)

Sem	Course Type	Course Code	Course Title	Theory / Practical	Credits
III	Major Mandatory	MAT-201-MJM	Calculus of Several Variables	Theory	02
	Major Mandatory	MAT-202-MJM	Laplace Transform & Fourier Series	Theory	02
	Major Mandatory	MAT-203-MJM	Ordinary Differential Equations	Theory	02
	Major Mandatory	MAT-204-MJM	Mathematics Practical III	Practical	02
	Minor	MAT-211-MN	Foundations of Linear Algebra	Theory	02
	Minor	MAT-212-MN	Practical based on Ordinary Differential Equations	Practical	02
	Open Elective (OE)	MAT-216-OE	Intermediate Mathematics	Theory	02
	Vocational Skill Course (VSC)	MAT-221-VSC	Financial Mathematics	Theory	02
	Ability Enhancement Course (AEC)	MAR-231-AEC HIN-231-AEC SAN-231-AEC	भाषिक उपयोजन व लेखन कौशल्ये हिंदी भाषा: कौशल प्राथमिक संभाषणकौशल्यम्	Theory	02
	Field Project (FP)	MAT-235-FP	Field Project	Project	02
	Co-curricular Course (CC)	YOG/PES/CUL /NSS/NCC-239-CC	To be selected from the Basket	Theory	02
	Generic IKS Course (IKS)	GEN-245-IKS	Generic IKS	Theory	02
	Total Credits Semester-III				**24**
IV	Major Mandatory	MAT-251-MJM	Vector Calculus	Theory	02
	Major Mandatory	MAT-252-MJM	Linear Algebra	Theory	02
	Major Mandatory	MAT-253-MJM	Operations Research	Theory	02
	Major Mandatory	MAT-254-MJM	Mathematics Practical IV	Practical	02
	Minor	MAT-261-MN	Multivariable Calculus	Theory	02
	Minor	MAT-262-MN	Practical based on Partial Differential Equations	Practical	02
	Open Elective (OE)	MAT-266-OE	Mathematical Methods	Practical	02
	Skill Enhancement Course (SEC)	MAT-276-SEC	Geogebra Software	Practical	02
	Ability Enhancement Course (AEC)	MAR-281-AEC HIN-281-AEC SAN-281-AEC	लेखन निर्मिती व परीक्षण कौशल्ये हिंदी भाषा: संप्रेषण कौशल प्रगत संभाषणकौशल्यम्	Theory	02
	Community Engagement Project (CEP)	MAT-285-CEP	Community Engagement Project	Project	02
	Co-curricular Course (CC)	YOG/PES/CUL /NSS/NCC-289-CC	To be selected from the Basket	Theory	02
	Total Credits Semester-IV				**22**
	Cumulative Credits Semester III + Semester IV				**46**

Department of Mathematics   AES's T. C. College of ASC, Baramati, (Autonomous)

Course Structure for (M.Sc. Mathematics) Part-II (2023 Pattern as per NEP- 2020)

Sem	Course Type	Course Code	Course Title	Theory/ Practical	No. of Credits
III	Major (Mandatory)	MAT-601-MJM	Linear Algebra	Theory	04
	Major (Mandatory)	MAT-602-MJM	Field Theory	Theory	04
	Major (Mandatory)	MAT-603-MJM	Practical based on Combinatorics	Practical	02
	Major (Mandatory)	MAT-604-MJM	Practical: Python Programming	Practical	02
	Major (Elective)	MAT-611-MJE (A)	Banach Spaces	Theory	02
		MAT-611-MJE (B)	Algebraic Topology	Theory	
	Major (Elective)	MAT-612-MJE (A)	Practical based on Graph Theory	Practical	02
		MAT-612-MJE (B)	Practical based on Coding	Practical	
	Research Project (RP)	MAT-621-RP	Research Project	Project	04
	Total Credits Semester III				**20**
IV	Major (Mandatory)	MAT-651-MJM	Differential Geometry	Theory	04
	Major (Mandatory)	MAT-652-MJM	Lattice Theory	Theory	04
	Major (Mandatory)	MAT-653-MJM	Practical based on Integral Equation	Practical	02
	Major (Elective)	MAT-661-MJE(A)	Hilbert Spaces and Spectral Theory	Theory	02
		MAT-661-MJE(B)	Cryptography	Theory	
	Major (Elective)	MAT-662-MJE(A)	Practical based on Boundary Value Problems	Practical	02
		MAT-662-MJE(B)	Practical based on Mechanics	Practical	
	Research Project (RP)	MAT-681-RP	Research Project (RP)	Project	06
	Total Credits Semester-IV				**20**
	Cumulative Credits Semester III and IV				**40**

Following courses syllabus are designed by Board of Studies in this meeting.

Class	Pattern	Sem.	Course Code	Course Title	Course Type	No. of Credits
S.Y.B.Sc	2023NEP 2020	III	MAT-201-MJM	Calculus of Several Variables	Theory	02
S.Y.B.Sc	2023NEP 2020	III	MAT-202-MJM	Laplace Transform & Fourier Series	Theory	02
S.Y.B.Sc	2023NEP 2020	III	MAT-203-MJM	Ordinary Differential Equations	Theory	02
S.Y.B.Sc	2023NEP 2020	III	MAT-204-MJM	Mathematics Practical III	Practical	02
S.Y.B.Sc	2023NEP 2020	III	MAT-211-MN	Foundations of Linear Algebra	Theory	02
S.Y.B.Sc	2023NEP 2020	III	MAT-212-MN	Practical based on Ordinary Differential Equations	Practical	02
S.Y.B.Sc	2023NEP 2020	III	MAT-216-OE	Intermediate Mathematics	Theory	02
S.Y.B.Sc	2023NEP 2020	III	MAT-221-VSC	Financial Mathematics	Theory	02
S.Y.B.Sc	2023NEP 2020	III	MAR-231-AEC HIN-231-AEC SAN-231-AEC	भाषिक उपयोजन व लेखन कौशल्ये हिंदी भाषा कौशल प्राथमिक संभाषणकौशल्यम्	Theory	02
S.Y.B.Sc	2023NEP 2020	III	MAT-235-FP	Field Project	Project	02
S.Y.B.Sc	2023NEP 2020	III	YOG/PES/CUL /NSS/NCC-239-CC	To be selected from the Basket	Theory	02
S.Y.B.Sc (Comp)	2023NEP 2020	III	GEN-245-IKS	Indian Knowledge System	Theory	02
S.Y.B.Sc (Comp)	2023NEP 2020	III	COS-241-MN(B)	Graph Theory	Theory	02
M.Sc.	2023NEP 2020	III	COS-242-MN(B)	Mathematics Practical Based on Graph Theory	Practical	02
M.Sc.	2023NEP 2020	III	MAT-601-MJM	Linear Algebra	Theory	04
M.Sc.	2023NEP 2020	III	MAT-602-MJM	Field Theory	Theory	04
M.Sc.	2023NEP 2020	III	MAT-603-MJM	Practical based on Combinatorics	Practical	02
M.Sc.	2023NEP 2020	III	MAT-604-MJM	Practical: Python Programming	Practical	02
M.Sc.	2023NEP 2020	III	MAT-611-MJE(A)	Banach Spaces	Theory	02
M.Sc.	2023NEP 2020	III	MAT-611-MJE (B)	Algebraic Topology	Theory	02
M.Sc.	2023NEP 2020	III	MAT-612-MJE(A)	Practical based on Graph Theory	Practical	02
M.Sc.	2023NEP 2020	III	MAT-612-MJE (B)	Practical based on Coding	Practical	02
M.Sc.	2023NEP 2020	III	MAT-621-RP	Research Project	Project	04
T.Y.B.Sc	2022	V	USMT351	Metric Spaces	Theory	03
T.Y.B.Sc	2022	V	USMT352	Real Analysis I	Theory	03
T.Y.B.Sc	2022	V	USMT353	Group Theory	Theory	03
T.Y.B.Sc	2022	V	USMT354	Ordinary Differential Equation	Theory	03
T.Y.B.Sc	2022	V	USMT355	Number Theory	Theory	03
T.Y.B.Sc	2022	V	USMT356(A)	Operation Research	Theory	03
T.Y.B.Sc	2022	V	USMT356(B)	C Programming	Theory	03
T.Y.B.Sc	2022	V	USMT357	Practical based on USMT351 and USMT352	Practical	02
T.Y.B.Sc	2022	V	USMT358	Practical based on USMT353 and USMT354	Practical	02
T.Y.B.Sc	2022	V	USMT359	Practical based on USMT355 and USMT356	Practical	02

Chairman
BOS, Mathematics

Dean
Science Faculty

IQAC
Coordinator

Principal

Anekant Education Society's

Tuljaram Chaturchand College

Of Arts, Science and Commerce, Baramati

Autonomous

Payment Voucher

Date: 12/03/2024

Name: Dr. Nitin Shridhar Darkunde

Address: School of Mathematical Sciences, SRTM University, Nanded-413606

Head of Exps on account of:

Particulars of Payment	Honorarium	TA/DA	Total
Board of Studies meeting on 12/03/2024, Dept. of Mathematics	1000/-	-	1000/-
Total Rs.	1000/-	-	1000/-

Rupees in words: One Thousand only

Name of Payee	Nitin Shridhar Darkunde
Name of Bank	Maharashtra Gramin Bank
Account No.	54165012406
Branch Name	SRTM University, Nanded Campus
IFSC Code	MAHG0004165

For Account Use Only

Checked and Found Correct recommended for Payment

Account Clerk   Office Superintendent   Registrar

Allowed & pay/Not Pay

Principal

Received with thanks from The Principal, Tuljaram Chaturchand College, Baramati.

Signature

Tuljaram Chaturchand College

Of Arts, Science and Commerce, Baramati

Autonomous

Payment Voucher

Date: 12/03/2024

Name: Mr. Amit Patil

Address: TCS, Pune

Head of Exps on account of:

Particulars of Payment	Honorarium	TA/DA	Total
Board of Studies meeting on 12/03/2024, Dept. of Mathematics	1000/-	-	1000/-
Total Rs.	1000/-	-	1000/-

Rupees in words: One Thousand only

Name of Payee		Amit Patil
Name of Bank		Kotak Mahindra Bank, Anna Nagar, Chennai
Account No.		04690040006070
Branch Name		Anna Nagar, Chennai
IFSC Code		KKBK0000469

For Account Use Only

Checked and Found Correct recommended for Payment

S Kuwil
12/3/24

Account Clerk   Office Superintendent   Registrar

Allowed & pay/Not Pay

Principal

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Signature

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Of Arts, Science and Commerce, Baramati

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Payment Voucher

Date: 12/03/2024

Name: Dr. Anil Shantaram Khairnar

Address: MES Abasaheb Garware College, Karve Road, Pune

Head of Exps on account of:

Particulars of Payment	Honorarium	TA/DA	Total
Board of Studies meeting on 12/03/2024, Dept. of Mathematics	1000/-	-	1000/-
Total Rs.	1000/-	-	1000/-

Rupees in words: One Thousand only

Name of Payee		Dr. Anil Shantaram Khairnar
Name of Bank		SBI
Account No.		20040786664
Branch Name		SPBB, Deccan Gymkhana, Pune
IFSC Code		SBIN0004357

For Account Use Only

Checked and Found Correct recommended for Payment

Account Clerk   Office Superintendent   Registrar

Allowed & pay/Not Pay

Principal

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Signature

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Of Arts, Science and Commerce, Baramati

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Payment Voucher

Date: 12/03/2024

Name: Dr. Haribhau R. Bhapkar

Address: MIT School of Engineering, Loni Kalbhor, Pune

Head of Exps on account of:

Particulars of Payment	Honorarium	TA/DA	Total
Board of Studies meeting on 12/03/2024, Dept. of Mathematics	1000/-	-	1000/-
Total Rs.	1000/-	-	1000/-

Rupees in words: One Thousand only

Name of Payee		Dr. Haribhau R. Bhapkar
Name of Bank		Bank of India
Account No.		062510110003954
Branch Name		MAEER, Rajbaug Branch, Pune
IFSC Code		BKID000625

For Account Use Only

Checked and Found Correct recommended for Payment

Account Clerk   Office Superintendent   Registrar

Allowed & pay/Not Pay

Principal

Received with thanks from The Principal, Tuljaram Chaturchand College, Baramati.

Signature