

# IQAC ANNUAL DEPARTMENTAL REPORT

Report for the Department of MATHEMATICS Year 2020-21

(Information should be compiled for the period starting from 1<sup>st</sup> July 2020 to 30<sup>th</sup> June 2021)

\*Submit the report by 15<sup>th</sup> August 2021 on [iqac.coordinator@jmc.ac.in](mailto:iqac.coordinator@jmc.ac.in)

Name of the Teacher In-Charge of the Department: Dr. Indrakshi Dutta

## PART A

### 1. List of courses (subjects) offered across the department during the year


Program code	Program Name	Course code	Course Name	Year of introduction
563	B.SC. (H) Mathematics	BMATH101	Calculus	1987
563	B.SC. (H) Mathematics	BMATH102	Algebra	1987
563	B.SC. (H) Mathematics	BMATH203	Real Analysis	1987
563	B.SC. (H) Mathematics	BMATH204	Differential Equations	1987
563	B.SC. (H) Mathematics	BMATH305	Theory of Real Functions	1987
563	B.SC. (H) Mathematics	BMATH306	Group Theory-I	1987
563	B.SC. (H) Mathematics	BMATH307	Multivariate Calculus	1987
563	B.SC. (H) Mathematics	SEC-1	LaTeX and HTML	1987
563	B.SC. (H) Mathematics	BMATH408	Partial Differential Equations	1987
563	B.SC. (H) Mathematics	BMATH409	Riemann Integration & Series of Functions	1987
563	B.SC. (H) Mathematics	BMATH410	Ring Theory & Linear Algebra-I	1987
563	B.SC. (H) Mathematics	SEC-2	Computer Algebra Systems and Related Software	1987
563	B.SC. (H) Mathematics	C 11	Metric Spaces	1987
563	B.SC. (H) Mathematics	C 12	Group Theory- II	1987
563	B.SC. (H) Mathematics	DSE-1	(i) Numerical Methods (including practicals) (ii) Mathematical Modeling and Graph Theory	1987 1987
563	B.SC. (H) Mathematics	DSE-2	(i) Mathematical Finance (ii) Discrete Mathematics	1987 1987
563	B.SC. (H) Mathematics	C 13	Complex Analysis (including practicals)	1987
563	B.SC. (H) Mathematics	C 14	Ring Theory and Linear Algebra- II	1987
563	B.SC. (H) Mathematics	DSE-3	Probability theory & Statistics	1987
563	B.SC. (H) Mathematics	DSE-4	Linear Programming and Theory of Games	1987
501	B.A. (Prog) (Eco-MT & CA-MT)	Paper- I	Calculus	1968
501	B.A. (Prog) (Eco-MT & CA-MT)	Paper- II	Algebra	1968



501	B.A. (Prog) (Eco-MT & CA-MT)	Paper-III	Analytic Geometry and Applied Algebra	1968
501	B.A. (Prog) (Eco-MT & CA-MT)	SEC-1	Computer Algebra Systems	2020
501	B.A. (Prog) (Eco-MT & CA-MT)	Paper-IV	Analysis	1968
501	B.A. (Prog) (Eco-MT & CA-MT)	DSE-1	Differential Equations	1968
501	B.A. (Prog) (Eco-MT & CA-MT)	DSE-2	Statistics	1968
501	B.A. (Prog) (Eco-MT & CA-MT)	SEC-4	Transportation and Game Theory	1968
510 & 504	B.A(H) Economics & B.Com(H)	GE-1	Calculus	1969 & 1977
510 & 504	B.A(H) Economics & B.Com(H)	GE-2	Linear Algebra	1969
510 & 504	B.A(H) Economics & B.Com(H)	GE-3	Differential Equations (with Practicals)	1969
510 & 504	B.A(H) Economics & B.Com(H)	GE-4	Elements of Analysis	1969
364	B.El.Ed (II Year)	O 2.3	Mathematics-1	1998
364	B.El.Ed (III Year)	O 3.3	Mathematics-2	1998

2. Courses (Subjects) that include experiential learning through project work/field work/internship (if applicable)

Program name	Program code	Name of the Course that include experiential learning through project work/field work/internship	Course code	Year of offering	List of the students studied course on experiential learning through project work/field work/internship	Number of students	Link to the relevant document (List of all the students, geotagged photographs, reports of the projects, field trips, internships, etc)
NA	NA	NA	NA	NA	NA	NA	NA



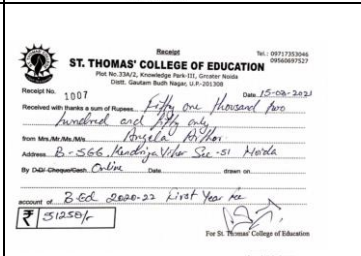
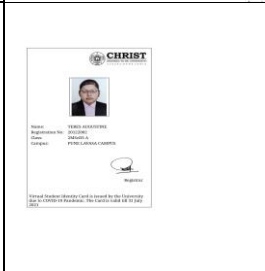

3. Placement of outgoing students (On and Off-Campus Placements):



Year	Name of student placed	Contact Details of the student	Program graduated from	Name of the employer with contact details	Pay package at appointment (In INR per annum)	On Campus or Off Campus	Attach Appointment Letter
2021	Ishika Bhutani	<a href="mailto:ishikabhutani15@gmail.com">ishikabhutani15@gmail.com</a>	B.Sc.(H) Mathematics	Mr.Ashish Garg, 01204139268	INR 2,64,000	Off Campus	

2021	Sanskriti Mishra	9911682184	B.Sc.(H) Mathematics	Skwad Lab India Pvt Ltd Amita Nautiyal Ph no: +91 124 4222 571	INR 5,00,000	Off Campus	
2021	Suruchi Beck	9570851177	B.Sc.(H) Mathematics	IPrep Learning Solutions Pvt Ltd Rohit Singhal 9211931609	INR 2,55,600	Off Campus	

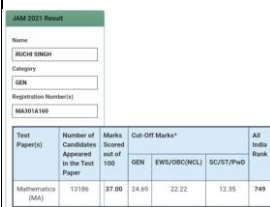
4. Students progressing to higher education (passing in the previous academic batch):

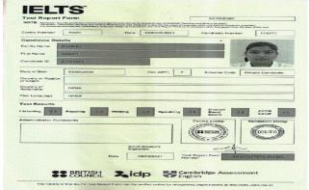

Name of student enrolling into higher education	Program graduated from	Name of institution joined	Name of programme admitted to	Proof of Admission (ID Card or Admission receipt)
Mahima Mariam Varghese	B.Sc.(H) Mathematics	Devi Ahilya Viswa Vidyala, Indore	M.Sc Data Science and Analytics	
Neha Sam	B.Sc.(H) Mathematics	Seoul National University, South Korea	MSc. International Business Management	

Megha Khanna	B.Sc.(H) Mathematics	SGTB Khalsa college, University of Delhi	M.Sc. Mathematics	
Shireen	B.Sc.(H) Mathematics	University Of Saarland, Saarbrucken, Germany	M.Sc. Mathematics	
Angela Arthur	B.Sc.(H) Mathematics	St Thomas College of Education, Greater Noida	B. Ed.	
Teres Augustine	B.Sc.(H) Mathematics	CHRIST (Deemed to be University), Pune Lavasa Campus	M.Sc Data Science	
Apoorva	B.Sc.(H) Mathematics	Department of Mathematics, University of Delhi	M.Sc Mathematics	

Ryna Irengbam	B.Sc.(H) Mathematics	University of Delhi	M.Sc Mathematics	
Yukti	B.Sc.(H) Mathematics	Indian Institute of Technology Roorkee	M.Sc. Mathematics	

5. Students qualifying in state/national/ international level examinations

Sl. no.	Year	Registr ation number /roll number for the exam	Names of student s selected / qualifie d	Names of students selected/ qualified										State govern ment exami nation s	Other examinations conducted by the State / Central Government Agencies (Specify)	Proof of Qualification	
				NE T	SLET	G A T E	G M A T	C A T	G R E	J A M	I E T S	O J E L	Civil Services				
1	2021	MA301 A160	Ruchi Singh														

2	2021		Additi Pandey															
3	2020	MA316 A124	Yukti							J A M								

6. Co-curricular programmes arranged by the Department:

1. Soft skills
2. Language and communication skills
3. Life skills (Yoga, physical fitness, health and hygiene)
4. ICT/computing skills
5. Placement or Career related talks
6. Preparation for competitive exam, etc.

Name of the Event/Talk/Seminar	Date of the Event (DD-MM-YYYY)	Number of students participated	Number of Faculty Members participated	Short report containing details of names of students/staff, resource persons, geotagged photos, attendance sheets, etc.
Department Orientation	November 2020	65	7	Link of Report <a href="#">Department Orientation</a>
GE Courses Orientation	November 2020	45	6	Link of Report <a href="#">GE courses Orientation</a>
Student Council Election	September 2020	78	6	Link of Report <a href="#">Student Council Election</a>

Teacher's Day Celebration	5 <sup>th</sup> September, 2020	55	6	Link of Report <a href="#">Teachers Day 2020</a>
An Online inter-college Paper Presentation Competition on the topic 'Applications of Mathematics across diverse fields'	2 <sup>nd</sup> November, 2020	94	6	Link of Report <a href="#">Paper Presentation 2020</a>
Freshers to Batch of 2023	20 <sup>th</sup> January, 2021	70	8	Link of report <a href="#">Freshers 2020</a>
Alumni Talks - 1	10 <sup>th</sup> Feb 2021	74	8	Link of report <a href="#">Alumni Talks</a>
Webinar on Covid analysis using R	3 <sup>rd</sup> March, 2021	50	7	Link of Report <a href="#">Meghnad Academy Talk</a>
Alumni Talks -2	11 <sup>th</sup> March 2021	53	6	Link of report <a href="#">Alumni Talks</a>
Alumni Talks -3	17 <sup>th</sup> March 2021	60	6	Link of report <a href="#">Alumni Talks</a>
Lecture Series -1 on Rings of Continuous Functions	22 March 2021	45	4	Link of report <a href="#">Lecture Series</a>
Farewell to Batch 2018-2021	21 <sup>st</sup> April, 2021	88	6	Link for report <a href="#">Farewell</a>

**\*Attendance Register with student's signature to be maintained.**

7. Workshops/Seminars/Conferences (National/International) organized by the Department

<b>Year</b>	<b>Name of the workshop/ seminar/ conference</b>	<b>Number of Participants</b>	<b>Date From – To</b>	<b>Attach detailed report including number of participants, geotagged photos, etc)</b>
NA	NA	NA	NA	NA

8. Outstanding visitors to the Department in the course of the academic year:

<b>Name</b>	<b>Designation</b>	<b>Purpose of visit</b>	<b>Date</b>	<b>Attach detailed report including number of participants, geotagged photos, etc)</b>
Ms. Sharmistha Chowdhury	Currently pursuing MBA from INSEAD, France.	Alumni Talk	10 <sup>th</sup> February, 2021	Link of report <a href="#">Alumni Talks</a>
Dr. Sandhya Krishnan	Assistant Professor, Meghnad Desai Academy of Economics	Webinar on ‘Data Analytics in Times of Pandemic: Analyzing COVID-19 on R’	3 <sup>rd</sup> March, 2021	Link of Report <a href="#">Meghnad Academy Talk</a>
Ms Shruti Chawla	Head of Consumer Lending at Freecharge	Alumni Talk	11 <sup>th</sup> March, 2021	Link of report <a href="#">Alumni Talks</a>
Dr. Shreya Gupta	Machine Learning Researcher and product leader at Texas's leading AI Startup, SparkCognition	Alumni Talk	17 <sup>th</sup> March, 2021	Link of report <a href="#">Alumni Talks</a>
Dr. Sanghita Dutta	Assistant Professor, Department of Mathematics, North Eastern Hill University	Lecture series: Talk on “Rings of Continuous Functions”	22 <sup>nd</sup> March, 2021	Link of report <a href="#">Lecture Series</a>

9. No. of Department meetings held in the course of the academic year: 30

\*Documentation of meetings with proper Agenda and Minutes to be maintained and kept with the department.

10. Library: Budget for the year and its utilization



- a) Total no. of books/journals appertaining to the subject in the College Library: 1917  
 b) Amount of Library Budget available to the Department: Rs 40,000  
 c) No. of new books/journals added to the library for the Department in the year: 15

11. Laboratory Equipment available in the department (wherever applicable):





- a) Budget of expenditure on maintenance of the equipment:  
 b) Actual expenditure on maintenance of the equipment:  
 c) Stock register of equipment purchased and discarded in the academic year







12. Alumni Day and other Alumni related activities/events held during the year


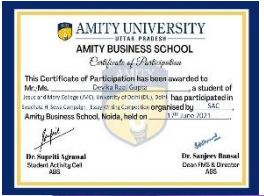


Name of the event	Number of Participants	Date	Report including list of alumni attending, geotagged photographs, alumni as resource persons, etc
<p><b>Alumni Talk series</b></p> <p>1. Ms. Sharmistha Chowdhury, Masters in Finance -Cass Business School, London. She is currently pursuing MBA from INSEAD, France.</p> <p>2. Ms Shruti Chawla, Post Graduate in Management - ISB Hyderabad. She is currently working as Head of Consumer Lending at Freecharge.</p> <p>3. Dr. Shreya Gupta, PhD (Operations Research) - The University of Texas, Austin She is currently working as Machine Learning Researcher and product leader at Texas's leading AI Startup, SparkCognition</p>	<p>1. 74 2. 53 3. 60</p>	<p>1. 10<sup>th</sup> February, 2021 2. 11<sup>th</sup> March, 2021 3. 17<sup>th</sup> March, 2021</p>	<p>Link of Report</p> <p><a href="#">Alumni Talks</a></p>

**\*Departments are suggested to maintain a proper alumni database with information related to placements, higher education, competitive exams, etc.**





13. Students in the Department who participated in academic events/competitions in other colleges and universities:

Name of Student	Class	Roll Number	Programme/Event/Competition	Award, if any (Attach the Certificate of Participation/Award)	Venue	Date	Attach photographs, if any
Surbhi	III Year	180613	Ganitiya- MATHRIX-21, Deen Dayal Upadhyaya College, DU	 Ganitya - Surbhi Tawatia.pdf	Google Meet	12 <sup>th</sup> March 2021	
Anushka Chhabra	II Year	191166	<ol style="list-style-type: none"> <li>1. MIT COVID-19 Challenge: Hack4Future – Winner 2020</li> <li>2. Techno Puzzled - 3rd Position - 2021</li> <li>3. Mathopolis 2.0 - St.Stephens College - 2020</li> <li>4. Prasanta Chandra Mahalanobis Memorial Mathematics Quiz - Notebook Nation - 2020</li> <li>5. Online Aptitude Test - GEC, Jhelawar - 2020</li> <li>6. Online Quiz on General Awareness of Big Data Analytics - IMS Ghaziabad - 2020</li> <li>7. Datanest: Data Analytics Competition - Ramjas College - 2021</li> <li>8. Pratyaksh - Data Visualization Competition - Goa Institute of Management - 2021</li> <li>9. TechTronix - National Analytics Competition - IIM Indore - 2021</li> <li>10. Tata Imagination Challenge – 2020</li> <li>11. SRCC: mad over maths - 2020</li> </ol>	  Jhalawar - Aptitude - Anushka Chhabra (1) ANUSHKA CHHABRA - ANUSHKA CHHABRA 	<ol style="list-style-type: none"> <li>1. Online</li> <li>2. Online</li> <li>3. St. Stephens College, DU</li> <li>4. Online</li> <li>5. Online</li> <li>6. IMS Ghaziabad</li> <li>7. Ramjas College, DU</li> <li>8. Goa Institute of Management</li> <li>9. IIM Indore</li> <li>10. Online</li> <li>11. SRCC, DU</li> </ol>		

Gayatri Chabra	II Year	190403	<p>1. SRCC: mad over maths - 2020</p> <p>2. Datanest: Data Analytics Competition, Ramjas College - 2021</p> <p>3. Pratyaksh- Data Visualization Competition - Goa Institute of Management - 2021</p> <p>4. IIM Indore -TechTronix - National Analytics Competition - 2021</p>		<p>1. SRCC, DU</p> <p>2. Ramjas College, DU</p> <p>3. Goa Institute of Management</p> <p>4. IIM Indore</p>		
Shailza Varshney	II Year	191154	Scoping Equations		Scoping Equations: Daulat Ram College, DU	19 <sup>th</sup> February, 2020	
Tanya Gupta	II Year	191338	<p>1. COVID-19 Awareness Quiz</p> <p>2. ARSD Bilingual Turncoat Debate Competition</p>	 	<p>1. Noida Institute of Engineering and Technology, Greater Noida</p> <p>2. Online, ARSD, DU</p>	2. 29 <sup>th</sup> August, 2020	
Shreyasee Chowdhury	I Year	201375	Student Training Programme on R	 <p>Shreyasee--Chowdhury-R-Participant-Certif</p>	Kirori Mal College in collaboration with Spoken Tutorial Project, IIT Bombay	25 <sup>th</sup> Jan, 2021 to 31 <sup>st</sup> Jan, 2021	
Aditi Varshney	I Year	201478	<p>1. Research based learning</p> <p>2. Vedic mathematics</p>		YouTube	13th June, 2021	
Anjali Batra	I Year	200423	Parakh	 <p>certificate - Anjali Batra.pdf</p>	D2C (Dare to Complete)	April 20	

					Ramanujan College, DU	
Devika Raaj Gupta	I Year	201534	<p>1. 3rd position- Case Study Competition (Investment Plan) as a part of the International E-Summit, 2021 organized by the E-Cell of VIT-Bhopal University</p> <p>2. National Level Ideathon as a part of WIE Day Celebration organized by IEEE WIE Gujarat Section AG</p> <p>3. Swachata Hi Sewa - Essay Writing Competition organized by Amity Business School, Noida</p>	  	Online mode	<p>1. 2<sup>nd</sup> - 3rd June 2021</p> <p>2. 22<sup>nd</sup> June 2021</p> <p>3. 17th June 2021</p>
Atipriya Dev Sinha	I Year	200286	Bussoc: Social B-Plan Competition, Enactus St. Stephen's		Online	27 <sup>th</sup> January, 2021
Prashita Verma	I Year	200924	Geomaty and Environmental quiz			5 <sup>th</sup> April, 2021
Jeffy Sabu	I Year	200443	Meme Maniac		D2C Form, Ramanujan College, DU	22 <sup>nd</sup> April, 2021
Maher Sondhi	I Year	200185	<p>1. Case Study Competition-St. Stephens College, DU</p> <p>2. College, B-Plan Competition SRCC, DU</p>			<p>1. 27<sup>th</sup> January 2021</p> <p>2. 14<sup>th</sup> June 2021- 5<sup>th</sup> July 2021</p>

14. List of students who were awarded honors/merit certificate/recognition from college and university or any other eminent institution:

Name of Student	Class	Roll Number	Nature of Merit/ Recognition (Attach the Certificate)	Attach photographs, if any
Sneh Chiripal	III Year	180486	SH. Anand Prakash Johri Memorial Scholarship	
Ananya Reddi	II Year	191141	Paper Presentation: UGC Sponsored National Conference on National Resources Management for Sustainable Development (JMC, DU)	
Ananya Reddi	II Year	191141	PTSA Prize Winner: First Year Topper	
Anushka Chhabra	II Year	191166	1st Position in Quiz on Big Data Analytics - IMS Ghaziabad	 Anushka Chhabra (1) - ANUSHKA CHHABRA
Deeksha Sharma	II Year	191312	Certificate of Achievement	
Khushi	I Year	200360	Science Olympiad	
Devika Raaj Gupta	I Year	201534	Most Innovative Marketing Member at Youth India Foundation (NPO)	

\*Details of Sports/Cultural achievements to be provided in the society reports.

15. Number of students of the Department who have participated in Community Development programmes:

Year	NSS	JMCEP	WDC	NCC	Peace	Green	Departmental	Any other
I Year	2	3	2	2	11	16		9-NSO

II Year	-	10	8	2	16	3		1-AICUF, 2-NSO
III Year	3	8	2	7	8	6		2-AICUF, 5-NSO

16. Number of awards and recognitions received for extension activities from government /government recognised bodies (only if done on department level)

Name of the activity	Name of the Award/ recognition for Institution for the Institution	Name of the Awarding government/ government recognised bodies	Year of award
NA	NA	NA	NA

17. Details and activities of Incubation Centre/Entrepreneurial Support Systems formed by the department:

18. SWOC Analysis

Strength

- 1) We encourage and ensure that all the students showcase their talent through activities like cultural activities as well as academic by arranging different departmental intra/inter college and national level activities wherein core committees are formed for marketing, research, social media etc.
- 2) We ensure that all the students can reach us through mentor ward or otherwise with any problem of theirs be it academic or completely personal.
- 3) We provide them letter of recommendation and also guides and counsel them to choose the right career path. Also arrange lectures to choose various career path.

Weakness

- 1) Still planning to have an international conference which we could not.

19. Future Plans:

- 1) Formation of Alumni base happened this year and started with Alumni Series and intend to continue this year and in future too.
- 2) Started with Lecture Series and planning more such this year.
- 3) This year we intend to start with hand-on training program for students as well as for teachers.
- 4) Intend to raise fund from within the department to help some economically backward students.

**PART B**

## 1. Attendance

Teacher	Class	No. and Topic of Paper	No. of Lectures Delivered	No. of students in different attendance categories					
				85% & above	80% & above but less than 85%	75% & above but less than 80%	70% above but less than 75%	66.6% & above but less than 70%	Less than 66.6%
Dr. Alka Marwaha	B.Sc.(H) Mathematics III Sem	Multivariate Calculus							
	B.Sc.(H) Mathematics IV Sem	Metric Spaces							
	B.El.Ed, 2 <sup>nd</sup> Year	Mathematics II							
	B.Sc.(H) Mathematics I Sem	Complex Analysis							
	B.Sc.(H) Mathematics I Sem	Complex Analysis (P)							
Dr. Anu Ahuja	B.Sc.(H) Mathematics I Sem	Algebra	42	39	1	1	0	0	1
	B.Sc.(H) Mathematics III Sem	Group Theory I	25	23	4	6	6	2	3
	B.Sc.(H) Mathematics III Sem	Latex & HTML	23	25	5	10	1	0	3
	B.Sc.(H) Mathematics IV Sem	Ring Theory and Linear Algebra I	38	1	1	0	2	0	2
	B.Sc.(H) Mathematics VI Sem	Linear Programing and Game Theory	48	19	3	4	2	0	14

	B.A(P) Sem VI	Transportation and Network Flow Problems	28	7	4	1	2	2	7
Ms. Rama Saxena	B.el.ed,3rd year	03.3, mathematics-2	82	15	1	0	0	0	0
	B.sc maths Hons,3rd year	C-11,metric spaces	55	39	2	0	0	0	0
	B.Sc Maths Hons., 1st Year	BMATH 102 Algebra	38	38	2	1	0	0	1
	B.el.ed,2nd Year	02.3 Mathematics 1	42	8	0	0	0	0	0
	B. Sc. Maths Hons. 2nd Year	BMATH 409 Riemann Integration and series of Functions	80	20	6	2	4	3	8
	B.A. Programme First Year	Algebra	44	17	3	2	2	1	3
Ms. Richa Krishna	BA PROG.	ANALYSIS SEM. V	83	20	1	1	0	0	1
	B.Sc.(H) MATHS	THEORY OF REAL FUNCTIONS SEM. III	82	11	10	10	6	1	5
	B.Sc.(H) MATHS	PARTIAL DIFFERENTIAL EQUATIONS SEM. IV	23	19	4	3	4	0	13
	BA PROG.	REAL ANALYSIS SEM. IV	76	9	3	1	0	2	12
	B.Sc.(H) MATHS	REAL ANALYSIS SEM. II	54	31	2	2	1	0	6



Dr. Ambika Bhamhani	B.A(P) I Sem	Calculus	57	18	3	3	1	0	4
	B.A(P) III Sem	Analytic geometry and Applied Algebra		8	2	6	0	2	9
	B.A(P) I Sem	Algebra	51	14	1	2	0	2	9
	B.A(P) III Sem	Statistics	50	18	1	0	3	0	1
	B.El.Ed. III Year	Statistics	28	11	1	1	3	0	0
Ms. Sunita Narain	1 <sup>st</sup> Math-h	Sem-1 C1-Calculus Sem-3 C3-Real Analysis							
	GE: 1 <sup>st</sup> Eco-h/BCH	Sem-1 Calculus							
	2 <sup>nd</sup> ECO-h/BCH	Sem-3, Diff.Eqs							
	2 <sup>nd</sup> ECO-h/BCH	Sem-4, Elements of Anlysis							
Dr. Anu Saxena	B.Sc. Hons Mathematics V Sem	Discrete Mathematics DSC 2	81	20	1	0	0	0	0
	B.Sc. Hons Mathematics III Sem	Multivariate Calculus Group A	52	16	2	0	2	0	3
	B.Sc. Hons Mathematics III Sem	Multivariate Calculus Group B	49	12	5	2	0	2	1
	Generic Elective II Sem	Linear Algebra	66	19	2	1	2	2	6
	B.Sc. Hons Mathematics VI Sem	Probability Theory & Statistics	40	41	0	0	0	0	0

	B.Sc. Hons Mathematics VI Sem	Ring Theory & Linear Algebra	56	41	0	0	0	0	0
Dr. Indrakshi Dutta	B.Sc. Hons Mathematics III Sem	Group Theory I		38	0	1	1	1	1
	B.Sc. Hons Mathematics V Sem	Group Theory II		32	7	2	0	0	0
	B.Sc. Hons Mathematics I Sem	Calculus		37	4	0	0	0	1
	B.A(H) Eco. I Sem	Calculus		28	2	1	0	0	1
	B.Sc. Hons Mathematics VI Sem	Ring Theory & Linear Algebra II		12	7	5	3	0	14
	B.Sc. Hons Mathematics IV Sem	Ring Theory & Linear Algebra I		13	4	1	2	1	20
	B.El.Ed	Mathematics Optional Paper No.- 0.2.3		8	0	1	0	0	0
	B.Sc. Hons Mathematics II Sem	Differential Equations (including practicals)		34	2	2	3	0	1
Dr. Rashmi Sehgal Thukral	B.Sc. Hons. Mathematics I Year	Calculus I Practicals Group A	8	12	0	1	0	0	1
	B.Sc. Hons. Mathematics I Year	Calculus I Practicals Group B	9	9	1	3	0	1	1
	B.Sc. Hons. Mathematics II Year	Partial Differential Equations	24	25	0	8	3	1	6

	B.Sc. Hons.Mathematics IIYear	Partial Differential Equations Group A	32	6	1	1	1	2	1
	B.Sc. Hons.Mathematics IIYear	Partial Differential Equations Group B	28	7	1	2	1	0	4
	B.Sc. Hons.Mathematics IIYear	Partial Differential Equations Group C	27	11	1	0	0	1	3
Dr. Shruti Tohan	Maths (H) Sem IV	Computer Algebra Systems	25	17	6	4	1	6	4
	Maths (H) Sem VI	Probability Theory and Statistics	38	24	3	5	4	1	4
	Maths (H) Sem VI	Complex Analysis Practicals (Group 1)	18	14	0	0	0	0	0
	Maths (H) Sem VI	Complex Analysis Practicals (Group 2)	23	14	0	0	0	0	0
	Maths (H) Sem VI	Complex Analysis Practicals (Group 3)	23	13	0	0	0	0	0
	Maths (H) Sem VI	Numerical Methods	76	22	1	0	0	0	0
	Maths (H) Sem VI	Numerical Methods practicals	59	15	6	2	0	0	0
	Maths (H) Sem III	Latex and HTML practicals Group 1	16	18	0	0	0	0	0



	Maths (H) Sem III	Latex and HTML practicals Group 2	53	21	1	0	0	0	0
	Maths (H) Sem VI	Mathematical Finance (Tut)	26	16	0	0	0	0	0
	Maths (H) Sem VI	Discreet Maths (Tut)	26	17	0	0	0	0	0
Dr. Monica Rani	B.Sc(H) Mathematics (III Year)	Mathematical Finance	40	20	0	0	0	0	0
	B.Sc(H) Mathematics (III Year)	Mathematical Modelling and Graph Theory	28	16	0	1	0	1	0
	B.Sc(H) Mathematics (II Year)	SEC- LaTeX and HTML (Practical)	48	15	2	1	0	3	1
	B.A (prog) (II Year)	SEC- Computer Algebra Systems Theory	27	13	1	2	3	1	7
	B.A (prog) (II Year)	SEC- Computer Algebra Systems Practical: Group A	51	7	2	0	0	0	2
	B.A (prog) (II Year)	SEC- Computer Algebra Systems Practical: Group B	45	5	3	1	1	0	6
	B.Sc(H) Mathematics (I Year)	Calculus (Practical) Group A	48	13	0	1	0	0	1
	B.Sc(H) Mathematics (I Year)	Calculus (Practical) Group C	34	9	1	0	0	1	0

	B.A (prog) (III Year)	DSE: Statistics	23	13	2	3	1	0	4
	B.Sc(H) Mathematics (II Year)	SEC- Computer Algebra Systems and Related Softwares Practical: Group 1	27	2	1	0	4	0	12
	B.Sc(H) Mathematics (II Year)	SEC- Computer Algebra Systems and Related Softwares Practical: Group 2	47	13	1	2	0	4	4
	B.Sc(H) Mathematics (I Year)	Differential Equation (Practical) Group A	44	13	0	0	1	0	1
	B.Sc(H) Mathematics (I Year)	Differential Equation (Practical) Group C	24	11	1	0	0	0	0
Dr. Shikha Mittal	B.Sc.(H) Mathematics I Sem	Calculus	Practicals Group B – 27 P Group C – 16 P	12 11	0	0	0	0	1
	B.Sc.(H) Mathematics V Sem	Mathematical Modelling and Graph Theory	31 L	14	3	1	0	0	0
	B.Sc.(H) Mathematics V Sem	Mathematical Modelling and Graph Theory	Practicals 43P	16	0	0	0	1	1
	B.A(H) Economics III Sem	Differential Equations with Practicals	Practicals Group A 31 P	10 10	2 3	0 2	1 0	1 0	4 1

			Group B 29 P						
	B.A(H) Economics III Sem	Differential Equations with Practicals	7L	23	1	0	5	0	5
	B.Sc.(H) Mathematics III Sem	Multivariate Calculus	12L	15	10	11	0	4	3
	B.Sc.(H) Mathematics V Sem	Mathematical Finance	21L	19	0	1	0	0	0
	B.Sc(H) Mathematics (II Sem)	Differential Equation (Practicals)	Practicals Group B- 44 Group C- 24	6 9	3 1	1 2	1 0	0 0	4 0
	B.Sc(H) Mathematics (VI Sem)	Complex Analysis (including Practicals)	24L	17	2	6	2	4	10
	B.A(P)	Transportation and Network Flow Problems	Sec A – 25P Sec B – 17P	2 8	3 1	1 1	1 0	1 0	0 5
	B.El.Ed	Mathematics	14L	9	0	0	3	0	4

2. College Society for which teachers in the Department are responsible:

Name of Teacher	Society	Indicate Convenor/Member	No. of students participated	Venue	Date
Dr. Alka Marwaha	IQAC	Coordinator			
Dr. Anu Ahuja	IQAC	Member			
	Grievance Cell	Convenor			
	Website Committee	Member			
Ms. Rama Saxena	Time Table Committee	Convenor	NA		

<b>Ms. Richa Krishna</b>	English Quiz Society	Convenor	As per the Society report Submitted to the college	 English Quiz Society Report year 2020-21.1	
<b>Dr. Ambika Bhambani</b>	Study Leave Committee	Convenor			
<b>Ms. Sunita Narain</b>	Placement Cell	Coordinator	312	JMC	2020-21
<b>Dr. Anu Saxena</b>	Equal Opportunity Cell	Convenor		 EOC EVENTS.pdf	
<b>Dr. Indrakshi Dutta</b>	Students Fee Aid Committee	Member			
	Review Committee Member of B.Sc. Mathematics Algebra in IGNOU				
<b>Dr Rashmi Sehgal Thukral</b>	Hindi Quiz Society	Member	38		
	Mathematics Department	Association Incharge			
<b>Dr. Shruti Tohan</b>	ECA Committee	Member			
	Convocation Committee	Member			
	Choreography Society	Convener			
<b>Dr. Monica Rani</b>	B.A prog Committee	Member			
	Remedial Coaching Classes	Member			
<b>Dr. Shikha Mittal</b>	Add-on-Courses Committee	Member			
	NAAC Criterion 6	Member			
	NAAC Criterion 7	Member			
	NAAC Core Team	Member			
	Remedial Coaching Classes	Member			
	Webinar Committee	Member			



\*Details of events organized by the societies to be given in the society reports only.



- University assignments undertaken by teachers of the Department. (Paper setting for previous two semesters for which results are declared, syllabus committees, Member of Board of Studies, Member of Department Research Committee, etc)





b) Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher

Sl. No	Name of the teacher	Title of the book/chapters published	Title of the paper	Title of the proceedings of the conference	Name of the conference	National / International	Year of publication	ISBN/ISSN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher	Attach Cover Page, Title Page, Content Page
1.	Dr. Shruti Tohan	"Applications of Fluid Queues in Rechargeable batteries" in the book "Applied Probability and Statistics"					2020	978-981-15-5950-1		Springer Singapore	 Encl 29.Applications of Fluid Queues in Re
2.	Dr. Shikha Mittal		Nonlinear Fractional Order System Synchronization via Combination-Combination Multi-	Proceedings of the International Conference on Advanced Intelligent Systems and Informatics 2020	International Conference on Advanced Intelligent Systems and Informatics	International	20/09/2020	978-3-030-58669-0	Jesus and Mary College	Springer	

			switching								
3.	Dr. Shikha Mittal	<i>Backstepping Control of Nonlinear Dynamical Systems</i>	Multi-switching synchronization of nonlinear hyperchaotic systems via backstepping control			International	11/07/2020	9780128175828	Jesus and Mary College	Academic Press	
4.	Dr. Shikha Mittal	<i>Backstepping Control of Nonlinear Dynamical Systems</i>	A new multistable plasma torch chaotic jerk system, its dynamical analysis, active backst			International	1/1/2021	9780128175828	Jesus and Mary College	Academic Press	


			eppin g contro l, and circuit design							
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5. Participation of faculty in:

- a. International Conferences held abroad, with topic, place and dates
- b. National/International Conferences held in India, with topic, place and dates








Name of the Teacher	Dept.	Name of Conference/ Seminar/Meeting/	Nature of Participation (participant/ resource person/ panelist)	Venue	Duration (from – to) (DD-MM- YYYY)	Attach Certificate of Participation

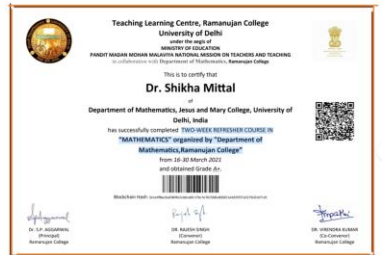

6. Teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)  
(Professional Development Programmes, Orientation / Induction Programmes, Refresher Courses, Short Term Courses etc.)

Name of teacher who attended	Title of the program	Duration (from – to) (DD-MM-YYYY)	Nature of Participation (Participant or resource person)	Attach Certificate of Participation
Dr. Alka Marwaha	Faculty Development Programme on “Online Teaching Tools”, Teaching Learning Center, Jesus and Mary College, University of Delhi	24-07-2020 to 25-07-2020	Participant	 <p>The certificate is from Jesus and Mary College, University of Delhi. It certifies that Dr. Alka Marwaha participated in a two-day Faculty Development Program on Online Teaching Tools from July 24th to 25th, 2020. The certificate is signed by Dr. Sanjay Joseph, Principal, and Dr. Pooja Bhardwaj, Convener.</p>

Dr. Anu Ahuja	Faculty Development Programme on “Online Teaching Tools”, Teaching Learning Center, Jesus and Mary College, University of Delhi	24-07-2020 to 25-07-2020	Participant	 <p>Jesus and Mary College University of Delhi Certificate of Participation Faculty Development Program On Online Teaching Tools</p> <p>Certificate No: JMC/068</p> <p>This is to certify that <b>Dr. Anu Ahuja</b> of Jesus and Mary College participated in a two day Faculty Development Program organised by Jesus and Mary College on 24<sup>th</sup>-25<sup>th</sup> July, 2020.</p> <p>Dr. Sancho Joseph Principal</p> <p>Dr. Pavitra Bhardwaj Convener</p>
Rama Saxena	Introduction to CAS (Maxima)	27-06-2020 to 18-07-2020	Participant	 <p>Online Certificate Course on Introductio</p>
Rama Saxena	Transforming Teaching-Learning Process using ICT Tools	28-08-2020 to 30-08-2020	Participant	 <p>Webinar Series (Professional) Attestec</p>
Rama Saxena	Faculty Development Programme on “Online Teaching Tools”, Teaching Learning Center, Jesus and Mary College, University of Delhi	24-07-2020 to 25-07-2020	Participant	 <p>FDP on Online Teaching Tools-conve</p>
Ms. Richa Krishna Sharma	Faculty Development Programme on “Online Teaching Tools”, Teaching Learning Center, Jesus and Mary College, University of Delhi Teaching Tools	24-07-2020 to 25-07-2020	Participant	 <p>FDP certificate RKS.pdf</p>
Dr. Ambika Bhambani	Faculty Development Programme on “Online Teaching Tools”, Teaching Learning Center, Jesus and Mary College, University of Delhi	24-07-2020 to 25-07-2020	Participant	 <p>Jesus and Mary College University of Delhi Certificate of Participation Faculty Development Program On Online Teaching Tools</p> <p>Certificate No: JMC/027</p> <p>This is to certify that <b>Dr. Ambika Bhambani</b> of Jesus and Mary College participated in a two day Faculty Development Program organised by Jesus and Mary College on 24<sup>th</sup>-25<sup>th</sup> July, 2020.</p> <p>Dr. Sancho Joseph Principal</p> <p>Dr. Pavitra Bhardwaj Convener</p>
Ms. Sunita Narain	Faculty Development Programme on “Online Teaching Tools”, Teaching Learning Center, Jesus and Mary College, University of Delhi	24-07-2020 to 25-07-2020	Participant	 <p>Jesus and Mary College University of Delhi Certificate of Participation Faculty Development Program On Online Teaching Tools</p> <p>Certificate No: JMC/096</p> <p>This is to certify that <b>Ms. Sunita Narain</b> of Jesus and Mary College participated in a two day Faculty Development Program organised by Jesus and Mary College on 24<sup>th</sup>-25<sup>th</sup> July, 2020.</p> <p>Dr. Sancho Joseph Principal</p> <p>Dr. Pavitra Bhardwaj Convener</p>

Dr. Anu Saxena	Faculty Development Programme on “Online Teaching Tools”, Teaching Learning Center, Jesus and Mary College, University of Delhi	24-07-2020 to 25-07-2020	Participant	 <p>Jesus and Mary College University of Delhi Certificate of Participation Faculty Development Program On Online Teaching Tools</p> <p>Certificate No: JMC/013</p> <p>This is to certify that <b>Dr. Anu Saxena</b> of Jesus and Mary College participated in a two day Faculty Development Program organised by Jesus and Mary College on 24<sup>th</sup>-25<sup>th</sup> July, 2020.</p> <p>Dr. Sandeep Joseph Principal</p> <p>Dr. Pavitra Bhardwaj Convener</p>
Dr. Indrakshi Dutta	Faculty Development Programme on “Online Teaching Tools”, Teaching Learning Center, Jesus and Mary College, University of Delhi	24-07-2020 to 25-07-2020	Participant	 <p>Jesus and Mary College University of Delhi Certificate of Participation Faculty Development Program On Online Teaching Tools</p> <p>Certificate No: JMC/078</p> <p>This is to certify that <b>Dr. Indrakshi Dutta</b> of Jesus and Mary College participated in a two day Faculty Development Program organised by Jesus and Mary College on 24<sup>th</sup>-25<sup>th</sup> July, 2020.</p> <p>Dr. Sandeep Joseph Principal</p> <p>Dr. Pavitra Bhardwaj Convener</p>
Dr. Indrakshi Dutta	Participated in two days webinar on “Applications of Mathematics in Image Processing and Network Security” organized by IQAC Rajdhani College, University of Delhi.	25/06/2021 to 26/06/2021	Participant	 <p>DEPARTMENT OF MATHEMATICS RAJDHANI COLLEGE (UNIVERSITY OF DELHI)</p> <p>This is to certify that <b>Dr. Indrakshi Dutta</b> Jesus and Mary College Participated in a 2-Day Webinar on “Applications of Mathematics in Image processing and Network Security” Organized by Department of Mathematics under the aegis of IQAC, Rajdhani College, University of Delhi on 25<sup>th</sup>, 26<sup>th</sup> June, 2021.</p> <p>Dr. Sandeep Joseph Principal</p> <p>Dr. A.A. Jaiswal Convener</p>
Dr. Rashmi Sehgal Thukral	FDP Research Methodology	1st Oct,2020-15th Oct,2020	Participant	 <p>Teaching Learning Centre, Ramamujan College University of Delhi</p> <p>This is to certify that <b>Dr. Rashmi Sehgal Thukral</b> of Department of Mathematics, Jesus and Mary College, University of Delhi successfully completed a 15 days Faculty Development Programme on “RESEARCH METHODOLOGY” from October 01- October 15, 2020 and obtained a grade: <b>A</b>.</p> <p>Dr. A.A. Jaiswal Principal</p> <p>Dr. Sandeep Joseph Convener</p>
Dr. Rashmi Sehgal Thukral	Refresher in Mathematics	16th March-30th March,2021	Participant	 <p>Teaching Learning Centre, Ramamujan College University of Delhi</p> <p>This is to certify that <b>Dr. Rashmi Sehgal Thukral</b> of Department of Mathematics, Jesus and Mary College, University of Delhi successfully completed 15 days Refresher course on “MATHEMATICS” organized by Department of Mathematics, Ramamujan College from 16<sup>th</sup> March, 2021 and obtained grade: <b>A</b>.</p> <p>Dr. A.A. Jaiswal Principal</p> <p>Dr. Sandeep Joseph Convener</p>

Dr. Shruti Tohan	Faculty Development Programme on “Online Teaching Tools”, Teaching Learning Center, Jesus and Mary College, University of Delhi	24-07-2020 to 25-07-2020	Participant	 FDP_JMC.pdf
Dr. Shruti Tohan	2-Week Faculty Development Programme on “Research Methodology”, Teaching Learning Center, Ramanujan College, University of Delhi	1/10/2020 to 15/10/2020	Participant	 fdp 2 week oct1-15.pdf
Dr. Shruti Tohan	1-Week Faculty Development Programme on "Development And Implementation Of Moocs", Teaching Learning Center, Ramanujan College, University of Delhi	21/10/2020 to 27/10/2020	Participant	 fdp oct 21-28.pdf
Dr. Shruti Tohan	1-Week Faculty Development Programme on "Advanced Pedagogical Techniques", Teaching Learning Center, Ramanujan College, University of Delhi	29/10/2020 to 5/11/2020	Participant	 fdp oct29-nov 5.pdf
Dr. Shruti Tohan	1-Week Faculty Development Programme on “Intellectual Property Rights”, Mahatma Hansraj Faculty Development Centre	10/02/2021 to 17/02/2021	Participant	 FDPHRC feb 10-17.pdf
Dr. Monica Rani	Online teaching Tools organized by JMC, University of Delhi	24-07-2020 to 25-07-2020	Participant	
Dr. Monica Rani	Recent trends in PDEs: Theory & Computations organized by the Department of Mathematics, School of Sciences, NIT Andhra Pradesh	2-10-2020 to 6-10-2020	Participant	 Monica Rani.pdf

Dr. Shikha Mittal	TWO-WEEK REFRESHER COURSE IN "MATHEMATICS" organized by "Department of Mathematics, Ramanujan College"	16/03/2021 to 30/03/2021	Participant	
Dr. Shikha Mittal	Online teaching Tools organized by JMC, University of Delhi	24-07-2020 to 25-07-2020	Participant	

7. Honours received by faculty members at the International/National level

Name of the teacher	Nature of Recognition	Granting Authority	Supporting Document

8. Teachers of the Institution participating in the following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies

- Design and Development of Curriculum for Add on/ certificate/ Diploma Courses
- Assessment /evaluation process of the affiliating University

Year	Name of teacher participated	Name of the body in which full time teacher participated
February 2021	Rama Saxena	Department of Maths, University of Delhi (Evaluation of B.Sc. (hons) Mathematics Papers held in December 2020)
June 2021	Rama Saxena	Department of Maths, University of Delhi (Evaluation of B.Sc. (hons) Mathematics Papers held in March 2021)
2020-21	Sunita Narain-internal Assessment & evaluation	JMC/Univ. of Delhi
2020-21	Dr. Shikha Mittal	Evaluation of the following Subjects (University of Delhi): 1. 32351601: Complex Analysis (including practicals)







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12. Teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies

Year	Name of teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support/membership fee received (in INR)

13. Mentor Ward Report

Name of the Teacher	Issues Raised	Issues resolved
Dr. Alka Marwaha	1: Some students expressed stress due to OBE pattern of exams. Issue resolved by sharing and discussing questions based on the online format. Issue no. 2: Some students sought career counselling on whether they should apply for higher studies abroad during the pandemic or wait for a year and apply in 2021.	Appropriate advice was given.
Ms. Rama Saxena	Shortage of Attendance of New Admissions	Issue was resolved by reducing the denominator
Ms. Richa Krishna Sharma	Difficulties Faced by Students Regarding Online Teaching and Stress Caused During Pandemic	GIVEN SUITABLE ADVICE
Ms. Sunita Narain- Mentored 3 <sup>rd</sup> year B.Voc Courses	Mental & Physical Health, Economic difficulties	Yes
Dr. Rashmi Sehgal Thukral	Students were facing psychological issues related to stress, Covid anxiety and the related drop in opportunities to socialize with their peer groups. These issues combined with long screen time was taking a toll on the mental well-being of several students.	The students were counselled through discussion, empathy and by providing constructive suggestions.

Dr. Monica Rani	Details in attached report	 Monica Mentor Ward Report.pdf
Dr. Shikha Mittal	Details in attached report	 Shikha Mentor Ward Report.pdf

**\*Attach the Mentor Ward List of the department teacher-wise with the report.**

**Instructions to fill the Departmental Report**

- Programme means the degree. For example: B.A. Programme, B.A. Hons, etc.
- Course means the subjects taught within the Programme. For example: Human Resource Management, Calculus, etc.
- The departments are requested to maintain all the supporting documents/reports on a Google Drive Folder (via Department's Mail ID) and attach the link of the respective folder in the tables above.
- All the above information is mandatory to fill.