23-24:

- 1. Programmecode (as found in the university syllabus): MATHEMATICS
- 2. Nameofthe Programme with date of commencement:

B.Sc Maths : 1993-94; M. Sc Mathematics : 2012-13 : 1993

- 3. Year of establishment
- 4. Papers Offered for study: As per CU syllabus.
- 5. Details of Courses Offered: B. Sc and M. Sc mathematics
- 6. Number of teachers recognized as research guides: 0
- 7. Total number of full time teachers: 6
- 8. Asst Prof. : 5(Smt. Sujisha M K, Smt. Najmah A R, Sri. Sajeesh Kumar V K, Smt. Deepa V, Smt. Diviya A V)

9.

Asso.prof : 1(Dr. Santhosh P K)

With PhD : 1
With NET : 6

- 10. Research projects funded by government and non-government agencies during the year : Nil
- 11. Detailed report of activities conducted by the department
 - 1. Conducted a National workshop on 'Python, Geogebra and Cyber Security' on 18,19,20 October 2023.
 - National Mathematics Day Celebration on 22 December 2023.
 (Exhibition+ Maths Quiz+ Game Zone+ Treasure Hunt using Math Puzzles+ Flash mob)
 - 3. PTA meeting for UG First Year: 26-3-24

UG Second year: 26-3-24 UG Third Year: 5-10-23

- 4. Bridge Course conducted for UG first semester (Core & Complementary) students using our first Semester PG students.
- 5. Given training in Latex(a globally accepted Mathematics type-setting software) for 5th Sem UG and 3rd Sem PG students
- 6. Conducted an Induction program for UG first Semester students by Mr. Ratheesh. P. M, Asst. Professor, Dept. Of Instrumentation, CUSAT on 1/12/23.
- 7. Mathematics Association was inaugurated and conducted a talk by Dr. T. K. Muralidharan, Associate Professor, Dept. of Mathematical Sciences,

Kannur University on 23/02/2024. The NET/JRF holders were honored in this program.

- 8. Conducted an academic interaction of PG students with Dr. A. Padmanabhan, Associate Professor of Maths (Retired) on 13/03/2024.
- 9. Pi-day celebrations were inaugurated by Dr. Babitha.K.V, Assistant Professor of Mathematics, Govt. College Madappally on 14/3/24.
- 10. Conducted aptitude test for first year UG students on 8/11/2023
- 12. Participation in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the year
 - Academic council/BoS of Affiliating University : Nil
- Setting of question papers for UG/PG programs :
 - 1. Smt. Diviya AV prepared Q.P for UG Third Semester Bsc Mathematics , Kannur University.
 - 1. Sri. Sajeesh Kumar VK, Chairman of UG Question setting Board, Kannur Uty
 - 2. Sri. Sajeesh Kumar VK prepared question paper for PG programme , Devagiri College(Autonomous)
- Design and Development of Curriculum for Add on/certificate/Diploma Courses Assessment/evaluation process of the affiliating University: **Nil**
- Number of teachers participated : NIL
- Name of the body in which fulltime teacher participated : NIL
- Total number of teachers : NIL
- 13. Names of the Add on/Certificate programs with 30 or more contact hours
 - 1. Foundation Course for B. Sc first year Main Students,: Foundations of Mathematics
 - 2. Foundation Course (Comp. Maths)for B. Sc first year Chemistry Main Students : Basic Calculus
 - 3. 3rd year B. Sc: Certificate Course in Latex
- No. of times offered during the same year : 1
- Total no. of students completing the course in the year

Foundation Course for B. Sc first year Main Students: 20

Foundation Course (Comp. Maths) for B. Sc first year Chemistry Main

Students : 18 Certificate Course in Latex : 20

- **14.** Courses that include experiential learning through project work/ fieldwork/ internship during the year
- Name of the Course : B. Sc and M. Sc (Project Work compulsory)
- Details of experiential learning through project work/ fieldwork/ internship

: Project work in new innovative areas of Mathematics

- Name of the Programme : B. Sc and M. Sc Mathematics
- Number of students undertaking project work/fieldwork/internships: 34 UG and 13 PG

11. How does the dept. assess the learning levels of the students and organize special Programmes for advanced learners and slow learners

For first year UG classes, we conduct aptitude test for assessing the subject level. We conduct internal exams and seminars for all students in all semesters.

For slow learners, we conduct more exams for them till they reach the bench mark and while giving seminars, we are very keen to the selection of topic. Individual care will be given by the Tutors. Whenever demanded, remedial coaching is also given. Video classes are provided in common, which they can use for their study.

For advanced learners, seminars of high standards were given. They are advised to join free online NET and GATE coaching group "Math Aspirants", a successful free coaching group, organized by Dr. Vinod Kumar, Associate Professor of Mathematics, Govt. College Tirur. Assignments also of high standard.

12. Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Assignments, Seminars, Viva, Project work etc are given.

15. ICT enabled tools for effective teaching-learning process used.

*In add*ition to the usual class room teaching, we provided corresponding videos prepared by us for enhancing effective learning. Both UG and PG, projects were done using LATEX, an open software. Some are using Google Classroom for sharing Questions papers, video classes and study materials.

- 14. Number of fulltime teachers with Ph.D./D.M./M.Ch./D.N.BSuperspeciality/ D.Sc./D.Litt.duringtheyear: 1(Dr. Santhosh P K)
 - **15. Number of guest teachers:** 1(Sri. Gokul R, in the maternity leave of Smt. Sujisha Manattukundayil)

16. Mechanism of internal assessment of the Dept.

Conducts internal exams at least 3 times in a semester. Assignments of various levels are given to students and time bound submission is instructed. All students are given seminars based on their capacity.

17. Mechanism to deal with internal examination related grievances:

Department has an internal redressal committee headed by HOD. Student can approach the committee directly. Committee will resolve the issue.

18. How does the Dept. evaluate the Programme outcomes and course outcomes and ensure their attainment:

Internal question papers are prepared based on COs in the syllabus. Course exit survey is also conducted to know the effectiveness of the course.

- $19. \,\,$ Total number of final year students (UG) who passed the university examination during the year : 30
 - Total number of final year students who appeared for the university examination during the year: 34
 - Pass percentage: 88%

M. Sc: Ongoing

Appeared:

Passed:

Pass Percentage:

20. Number of workshops/seminars conducted: 1

Provide details of the following:

1. Name : Workshop on 'Geogebra, Python and Cyber Security'.

National/International : National Funding Agency : DCE

Duration : 18,19,20 October 2023.

Number of Participants : 42 **Amount sanctioned** : 1,34,400/-

- **22**. **How many teachers have registered for Ph.D**: 1(Najmah A R, Part time PhD on 3-2-2020)
 - 23. If Guide: NIL

24. Number of research papers per teachers in the Journals notified on UGC website during the year

• Title of paper : On Tensor Product of c-spaces

Name of the author/s
 Department of the teacher
 Mathematics

• Name of journal : CREAT. MATH. INFORMVol 33(2024), no. 1, pp. 57-64

• Year of publication : 2024

• ISBN/ISSNnumber : 1584-286X

25. Total number of books and chapters in edited volume/books published and papers in national/internationalconferenceproceedingsyearwiseduringyear

Nil:

26. Extension activities and outreach Programmes conducted with industry, community & Awards and recognition received for extension activities if any:

A

• Name of the activity : Extension

• Name of the scheme : Bridge Course (for both First UG Core and

Complementary students of Mathematics)Year of the activity : 2023-24

• Number of teachers participating in such activities : 2

• Number of students participating in such activities : 17 PG students

- 27. Collaborative activities for research, Faculty exchange, Student exchange/internship year wise during the year: NIL
- 28. MoUs with Institutions of national, international importance, other universities, industries, corporatehousesetc. NIL
- 29. Capacity building and skills enhancement initiatives taken by the institution include the following
 - 1. Seminars
 - **2.** Projects in open softwares LATEX
 - **3.** Assignments
 - **4.** Interaction with experts like Dr. Murlledharn T. K., Dr. A Padmanabhan, Dr. Muhammed Kayoom, Mr. Ratheesh P. M. from CUSAT, Dr. Babitha etc
 - **5.** Celebrated National Mathematics day and Pi day.
 - **6.** Conducted Exhibition, mock drill and Quiz programmes related to above celebrations.
 - 7. Conducted one Career awareness programmes
 - **8.** Conducted 1 National Seminar
 - **9.** Two Bridge courses and one certificate course conducted.

30. Mechanism for timely redressal of student grievances at the Dept. level:

- 1. Implementation of guidelines of statutory/regulatory bodies
- **2.** Organization wide awareness and undertakings on policies with zero tolerance
- **3.** Mechanisms for submission of online/offline students grievances
- **4.** Timely redressal of the grievances through appropriate committees
- 31. Number of placement of outgoing students during the year: NIL
- 32. Number of students progressing to higher education during the year
- **33. Number of students qualifying in state/ national/ international level : examinations** JAM/CLAT/NET/ SLET/ GATE/GMAT/CAT/GRE/ TOEFL/Civil Services/State government examinations : 2 (JAM) (Sri. Sayanth and Sri. Rahul)
 - 34. Number of students appearing in state/ national/ international level examinations (eg:JAM/CLAT/NET/SLET/GATE/GMAT/CAT,GRE/TOFEL/CivilServices/Stategov ernmentexaminations)

JAM- 4 NET:

35. Faculty participation/presentation of papers in Seminars/workshops:

Faculty Name	Name of the course	Duration and Date	Name of the Centre conducting the Course	Sponsoring Agency
Dr. Santhosh PK	Workshop on 'Geogebra, Python and Cyber Security'.	3 days; 18-1023 to 2010-23	Govt. College Mokeri	DCE
Najmah A R	Instructional Workshop on Spectral Graph Theory	4 days 4-7-23 to 7-7-23	Vidyavardhaka College of Engineering, Mysuru	NSERB
Najmah A R	International Conference on Discrete Mathematics(ADMA)	3 days 8-6-23 to 10-6-23	Vidyavardhaka College of Engineering, Mysuru	NSERB
Najmah AR	Workshop on Research Trends in	2 days 4-8-23 to	CUSAT	CUSAT

	Mathematics	5-8- 23		
Najmah AR	National Seminar on Algebraic Graph Theory	2 days 16-10-23 to 17-10-23	Govt. Arts and Science College Kondotty.	DCE
Najmah AR	Workshop for WDC coordinators	1 day 8-12-2024	Centre for Gender Justice & Dept of Women Studies, CU	Calicut University
Najmah AR	Workshop on 'Geogebra, Python and Cyber Security'.	days 18-1023 to 2010-23	Govt. College Mokeri	DCE
Sajeesh Kumar V K	FYUGP Workshop	2 days 4-12-23 to 5-12-23	Board of Studies of Mathematics, Calicut University.	
Sajeesh Kumar V K	Mathematical Programming with Python & Latex.	2 days 20-12-23 to 21-12-23	Dr.B.R.Ambedkar Govt. College Balussery.	DCE
Sajeesh Kumar V K	Workshop on 'Geogebra, Python and Cyber Security'.	days 18-1023 to 2010-23	Govt. College Mokeri	DCE
Deepa V	Data Analysis using MS Excel, Google Sheets and AI tools	6-3-24 to 8-3-24	Online Mode.	GISS- Global Institute of Statistical Solutions
Deepa V	National Workshop on writing proposal for funded projects	14-4-24	Online Mode.	GISS
Deepa V	Workshop on 'Geogebra, Python and Cyber Security'.	days 18-1023 to 2010-23	Govt. College Mokeri	DCE
Diviya A V	Mathematical Programming with Python & Latex.	2 days 20-12-23 to 21-12-23	Dr. B.R.Ambedkar Govt. College Balussery.	DCE
Diviya A V	Workshop on 'Geogebra, Python and Cyber Security'.	days 18-1023 to 2010-23	Govt. College Mokeri	DCE
Gokul R	Workshop on 'Geogebra, Python and Cyber Security'.	days 18-1023 to 2010-23	Govt. College Mokeri	DCE

36. Faculty participation in Refresher/Orientation/Short term courses:

Sl.No	Faculty Name	Period of the	Name of	No.of Days	Conducting
		course	Course		Authority
1	Sajeesh Kumar VK	31-3-24 to	Foundation	14	Ramanujan
		13-4-24	Course in		College
			Vedic		Delhi.
			Mathematics		