DEPARTMENT OF MATHEMATICS

REPORT ON VALUE ADDED COURSE CONDUCTED FROM 5th FEBRUARY 2022 TO 7th APRIL 2022

Title: Number – Theoretic function

Date: 05/02/2022 to 07/04/2022

Venue: Room No - 312

Participents: 1st year B.Sc(EMCs) students.

Resource Person: Thulasi Rajeev Mudakavi

Number of Students: 22

Event Co-Ordinator: Mrs. Haritha A

Objective: The course is designed to introduce basic ideas of number theoretic functions. The module will illustrate some important topics on the theory of congruences and its applications to Calendar problems.

Department of Mathematics organized value added course on Number – Theoretic function 5th February 2022 to 7th April 2022 for the students of 1st year B.Sc(EMCs) in room no.312. The value added course was inaugurated by Dr.A.Nagarathna, Principal under the patronage of Sri.M.R. Janakiram (Honarable Director, Gokula Education Foundation), Sri.M.R.Kodandaram (Honarable Director, Gokula Education Foundation) and Sri.Ramprasad (Chief Executive, Gen Science, Gokula Education Foundation). The resource person to the course was Mrs.Thulasi Rajeev Mudakavi. This course was conducted for 30 hrs.

The registration process started on 1st February 2022. The program started at 11:00am on 5th February 2022 followed by the inauguration and then the sessions began with the brief introduction of the resource person and few words delivered by principal madam.

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The session started with the introduction to history of number theory where it started with Babylonian Mathematics, Pythagoras, Thales, Euclid, Hippasus, Greek Mathematics, Aryabhata, Fermat, Euler and their great contribution to the theory of numbers and its evolution over the years.

She explained the concept of division algorithm, Diophantine equation, linear congruences and how these topics are applied in different fields of study.

The following are the topics covered in the sessions:

- Concept of division algorithm and problems on them.
- Diophantine equation and problems on them to understand the concept.
- Fundamental theorem of Arithmetic.
- Linear congruences.
- Chinese remainder theorem.
- Sum and number of divisors.
- The Mobius Inversion formula.
- The Greatest integer function.
- Application to Calendar problems.

Many problems were solved in the class to make the students have a better understanding of the subject. Problem solving test were conducted in the class to know student's interest and understanding of the subject. Number theory has lot of application in various fields like cryptography, computer science and many other fields. At the end of the course students were given test to assess their understanding of the subject and feedback was collected to improvise the teaching methodology and content of the course.

The main conclusion of this course was to make students to understand the development of theory of numbers, their importance and applications to many fields of study. This course was also intended for the students to develop an interest in studying Mathematics.

Outcome:

Through this value added course students understood division algorithm, linear congruences, residue classes and the Chinese remainder theorem. Students used the concept of divisors, greatest integer function to understand the application to calendar.

Value Added Course on "Number-Theoretic Function" Photos :