

16.01.2021

Programme Report

Name of the Programme: Workshop on Group Theory

Date: 16th January 2021

The department organized an online workshop on Group Theory through google meet on 16th January 2021 at 10 am. The workshop provided participants with an opportunity to deepen their understanding of group theory concepts through hands-on problem-solving activities. The session discussed previous years' JAM Mathematics questions in Group Theory. Mrs. Sruthi Chundakkaran (Assistant Professor, Department of Mathematics, Co-operative Arts & Science College, Madayi) managed the session and addressed some problems on the topic groups and subgroups. The workshop aimed to strengthen students' problem-solving skills, foster collaboration, and explore various problem-solving techniques in the context of group theory. Final Year BSc Mathematics Students of the department actively attended the session.

DEPARTMENT OF MATHEMATICS

CO-OPERATIVE ARTS AND SCIENCE COLLEGE, MADAYI

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DEPARTMENT OF MATHEMATICS

Co-operative Arts and Science College, Madayi

Payangadi RS. (PO) , Kannur, Kerala-670358

WORKSHOP ON GROUP THEORY

Resource Person:

Smt. Sruthi Chundakkaran

Assistant Professor

Department of Mathematics

CAS College, Madayi

on
16 January 2021, 10 am

via; Google Meet

Faculty Co-ordinators:

Dr.Shijina.V

(Assistant Professor & HOD)

Smt. Sruthi Chundakkaran

(Assistant Professor)

Permutation groups

Q1) $\sigma_1 = (1, 2) (3, 4, 5) (6, 7, 8)$. Find order of σ_1

$$o(\sigma_1) = \text{lcm}(2, 3, 3) = 6$$

Q2) What is the maximum possible order of an element in S_7

$$(1, 2, 3) (4, 5, 6, 7)$$

$$\text{lcm} = 3 \times 4 = 12$$

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Permutation groups

Q1) $\sigma_1 = (1, 2) (3, 4, 5) (6, 7, 8)$. Find order of σ_1

$$o(\sigma_1) = \text{lcm}(2, 3, 3) = 6$$

Q2) What is the maximum possible order of an element in S_7

$$(1, 2, 3) (4, 5, 6, 7)$$

$$\text{lcm} = 3 \times 4 = 12$$

Q3) What is the maximum possible order of an element in S_9

$$(1, 2, 3, 4) (5, 6, 7, 8, 9) \quad \text{lcm} = 4 \times 5 = 20$$

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