

DEPARTMENT OF MATHEMATICS

BRIDGE COURSE FOR PG STUDENTS 2022-2023

Duration: 20 hour

Tentative period : 19-9-2022 to 23-9-2022

SYLLABUS

1. ALGEBRA

Groups, Subgroups, Cyclic groups, Rings, Fields

2. LINEAR ALGEBRA

Vector space, Subspace, Basis, Dimension, Rank-Nullity theorem

3. REAL ANALYSIS

Sequence and Series of real numbers, Open and Closed sets ,Continuous functions, Riemann integral

4. GRAPH THEORY

Graph, Trees, Planar graphs, Eulerian graphs

5. NUMBER THEORY

GCD, Tau and Sigma functions, Linear Congruence, Division algorithm

Note : In addition to the sessions on the above topics, special sessions will be arranged on “Opportunities and challenges of Higher education in Mathematics”