

MA-607 THEORY OF GROUP ACTIONS (Cr-3)

Survey of theory of group actions, Applications of group actions, Transitivity and k -transitivity, Primitivity, Finite fields and their extensions, Projective line over finite fields, Finite geometries, Projective spaces and their groups, Actions of $PGL(n, q)$ and $PSL(n, q)$ on $PG(n-1, q)$, Simplicity of projective special linear groups over finite fields, Modular group, Parameterization of action of the extended modular group on projective lines over finite fields. Projective and linear groups through actions.

RECOMMENDED BOOKS:

1. Coxeter, H.S.M. and Moser, W.O., Generators and Relations for Discrete Groups, Springer-Verlag.
2. J.S. Rose, S., A Course in Group Theory, Cambridge University Press. 1978
3. Johnson, D.L., Presentation of Groups, Cambridge Lecture Notes, 1976.