

Nepal Algebra Project(NAP)
Central Department of Mathematics
Tribhuvan University, Kirtipur, Kathmandu, Nepal
Fields and Galois Theory- Short Note of Lecture Module 1 - Lecture 1
Course Instructor: Prof. Michel Waldschmidt

Summary of NAP: Module -1, Lecture 3, Thursday May 4, 2017

- Subring generated by a subset. Subfield generated by a subset. Ideal generated by a subset.
- Algebraic vs transcendental elements over a field.
- Finite extension, algebraic extension. Degree of an extension.
- Simple extension.
- Irreducible polynomial of an algebraic number.
- If α is algebraic over F , then $F(\alpha) = F[\alpha]$.
- Frobenius endomorphism in characteristic non zero.