

**B. Sc. Three Year Degree Course**  
**Department of Forestry and Environmental Sciences**  
**Detailed semester syllabus commenced from 2016-17**

**V Semester**

**Paper I Forest Pathology**

**(60+ 20 marks)**

Introduction and history of forest pathology. Introduction of various plants pathogens fungi, bacteria, viruses etc. Symptomology and identification of plant diseases. Classification of forest tree diseases and their control. Common diseases in forest trees root rot, heart rot, wilt, stem cancer, stem rust, die-back, galls, leaf spots, leaf blight, powdery mildew and leaf rust. Nursery diseases. Diseases caused by phanerogamic plant parasite like *Dendrothoe*, *Acanthobium*, *Lorenthous* etc. Principles of tree diseases control: cultural, chemical and biological control methods.

**Paper II Forest Entomology**

**(60+ 20 marks)**

Introduction and classification of insects (only forestry importance). Protection against injuries by plants-defoliating, sap sucking and mites, shoot, twig and root insects seed and cone insects, wood boring insects and gall markers. Methods of control against insects and pests- silvicultural, biological and chemical.

**Paper III Forest Logging and Utilization**

**(60+ 20 marks)**

Definition, scope and logging practices. Felling and conversion, felling tools, season of felling, method of felling and conversion. Transportation- major and minor transportation, storage and types of depots of timber, their management, extraction and disposal of timber. Minor forest products like grass oil, seed oil, tans and dyes, gum, resin, rubber, fibre and flosses, animals and minerals and other miscellaneous products. Medicinal plants- drugs species, edible and poisons, important medicine of Uttarakhand. Important forest industries- Paper and pulp, cutch and katha, bidi, furniture, sport goods, pencils, toys, plywood and match.

**Practical**

**(45+15) 60 Marks**