

**THEORY**

Agriculture, history, importance, branches and allied sciences. Salient features of Pakistan's agriculture. Climate, land and water resources. Agro ecological zones of Pakistan. Farming systems. Tillage: objectives and types. Seed: types and quality. Crop nutrients, manures and fertilizers, sources and methods of application. Irrigation: systems, types and management. Crop protection measures. Crop rotation. Harvesting, processing, storage and marketing of farm produce. Agro-based industries. Environmental pollution and health hazards.

**PRACTICALS**

Land measuring units. Demonstration of hand tools and tillage implements. Identification of meteorological instruments. Identification of crop plants, weeds and seeds. Identification of organic and inorganic fertilizers. Calculation of nutrient-cum-fertilizer unit value. Demonstration of various irrigation methods. Field visits.

**BOOKS RECOMMENDED**

1. Abbas, M. A. 2006. General Agriculture. Emporium Urdu Bazar, Lahore
2. Balasubramaniyan. 2004. Principles and Practices of Agriculture. Agrobios, Jodhpur, India.
3. Bashir, E. and R. Bantel. 1996. Soil Science. National Book Foundation, Islamabad.
4. Cheema, Z.A. and M. Farooq. 2007. Agriculture in Pakistan. Allied Book Centre, Urdu Bazar, Lahore.
5. Khalil, I.A and A. Jan. 2002. Cropping Technology. National Book Foundation, Islamabad.
6. Khan S.R.A. 2001. Crop Management in Pakistan with Focus on Soil and Water. Directorate of Agricultural Information, Punjab, Lahore.
7. Nazir, M.S. 1994. Crop Production. National Book Foundation, Islamabad.
8. Qureshi, M.A. M.A. Zia and M.S. Qureshi. 2006. Pakistan Agriculture Management and Development. A-One Publisher, Urdu Bazar, Lahore.