

THEORY

Farm Mechanization: Definition, objective of farm mechanization, scope of farm mechanization in Pakistan. Tractor: Engine components and terminologies, Principle of operation of 4-stroke and 2-stroke cycle engines and their comparison, Maintenance routine and its importance. Farm Machinery: Types of tillage machinery, Planning equipments, Plant protection equipments, harvesting and threshing equipments, Cost analysis of agricultural Machinery.)

PRACTICALS

Study of different parts of tractor. Practical demonstration of tractor maintenance programme. Practical demonstration of primary and secondary tillage implements. Calibration and operation of sowing and fertilizing machinery. Study of tractor systems. Study of hitching different implements. Study of combine harvester operation in field.

BOOKS RECOMMENDED

1. Clinton, O.J. and R.H. William. 1995. Agricultural power and machinery Gregg Division, McGraw Hill Book Company. USA.
2. Jain, S.C. and G. Philip. 2003. Farm machinery- An approach. Tata McGraw Hill, New Delhi, India.
3. Kaul, R. N. and C.O. Egbo. 1985. Introduction to agricultural mechanization, McMillan Publishers Ltd, London, UK.
4. Tahir, A.R. and M.S. Sabir 2003. Fundamentals of tractor and agricultural machinery. University of Agriculture, Faisalabad, Pakistan.