



EASTERN UNIVERSITY, SRI LANKA
FIRST YEAR SECOND SEMESTER EXAMINATION IN AGRICULTURE- 2003/2004
AEN 1201 FARM POWER AND MACHINERY (3:30/30)

Answer all questions.

Time: Two hours

01. (a) Briefly describe the power sources used in farm operations
(b) Define the following terms.
(i) Firing order of a multi-cylinder engine
(ii) Clearance volume of the cylinder
(c) A cylinder of an engine has a diameter of 14 cm and a length of 32 cm. The Clearance volume of the above cylinder is 574 cm^3 . Calculate the following.
(i) Compression ratio
(ii) Piston displacement
(iii) Stroke: Bore ratio
02. (a) What do you mean by the term 'Tillage'?
(b) (i) Illustrate and identify the parts of the Mould Board Plough.
(ii) Briefly describe the functional features of the mould board plough.
03. (a) Give the types of nozzles commonly used in sprayers.
(b) Classify the sprayers based on the size of operation and rate of application.
(c) List the functions of planting equipments.
(d) Briefly discuss about the operating principles of centrifugal pumps.
04. Write short notes on the following.
(a) Depreciation
(b) Traction aids used to improve the traction
(c) Coefficient of traction