



EASTERN UNIVERSITY, SRILANKA
FIRST YEAR SECOND SEMESTER EXAMINATION IN AGRICULTURE
2002/2003
FARM POWER AND MACHINERY (AEN 1201)

Answer all questions.

Time: 2 hours

01. (a) Briefly discuss the important events occur in an internal combustion engine to convert the energy in the fuel into useful mechanical energy at the engine power outlet.
- (b) What do you mean by the following terms:
(i) Clearance volume
(ii) Top dead center
(iii) Compression ratio
- (c) An engine has a bore of 150 mm and a stroke of 186mm. Compute the following:
(i) Piston displacement
(ii) Total cylinder volume
(iii) Compression ratio
02. (a) Explain the following terms:
(i) Coefficient of traction
(ii) Travel reduction
- (b) Briefly describe the factors affecting "Coefficient of traction".
- (c) Compare the diesel engine with the petrol engine.
- (d) Give the advantages and disadvantages of a two - stroke cycle engine.
03. (a) Briefly explain the functions of a lubrication system.
(b) Discuss about the splash lubrication system used in an agricultural tractor.
04. (a) List out the important parts of a transmission system present in a tractor and state the functions of each component.
(b) Discuss the ignition systems of an agricultural tractor.