

EASTERN UNIVERSITY, SRILANKA

FIRST YEAR SECOND SEMESTER EXAMINATION IN AGRICULTURE 2006/2007

(April/May – 2010)

EXTERNAL DEGREE

AEN 1201 - FARM POWER AND MACHINERY (3:30/30)



Answer all questions

Time: 02 hours

1. (a) State the functions of a cooling system in a four wheeled tractor.
(b) Briefly describe the components of a fuel system of a diesel engine.
(c) Describe the tuning procedure of the fuel system to get the full performance of a petrol engine.
 2. (a) What is the importance of air cleaner in automobile engines?
(b) Describe the types of air cleaner and explain those functions.
 3. (a) List at least 5 functions of the power outlets from a tractor.
(b) What is the purpose of tillage?
(c) What are the implements used for primary and secondary tillage?
(d) Give the basic components of each implement named in question 03 (c).
 4. (a) What is traction? List the methods used to increase the traction of tractors.
(b) A tractor having a weight of ' w ' kg acting at ' a ' m from the rear wheel. The length between front and rear wheel is ' x ' m. The pull of ' p ' kg is given to this tractor which is acting at ' y ' m from the rear wheel surface contacting point. Derive the equations for weight transfer in the front and the rear wheel.
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