

EASTERN UNIVERSITY, SRILANKA

FIRST YEAR FIRST SEMESTER EXAMINATION IN AGRICULTURE - 2012/2013

(Jan / Feb - 2015)

AE 1101 - FARM MECHANIZATION



Answer all questions

Time allowed: One hour

01.

- (i) Explain the thermosiphonic system of cooling in an internal combustion engine with the aid of a suitable diagram. (50 marks)
- (ii) List the main components of a power transmission system of a tractor and give functions of each. (50 marks)

02.

- (i) Write a brief account on different types of furrow openers provided in seed drills. (20 marks)
- (ii) Give a brief note on the mechanisms present in a combine harvester. (30 marks)
- (iii) A four wheel tractor with the weight of 2500 kg pulls a trial implement on a level ground. The centre of the gravity of the tractor is 60 cm ahead of the rear axle. The point of hitch is located 40 cm above the ground surface and 30 cm behind the rear axle. The angle of inclination of the line of pull with horizontal is 20° , calculate the maximum pulling force provided by the tractor. (50 marks)