



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2015/2016 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER

MAIN EXAMINATION

**FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE
AND BIOTECHNOLOGY, BACHELOR OF SCIENCE IN
AGRICULTURE EDUCATION AND EXTENSION, BACHELOR OF
SCIENCE AGRICULTURE ECONOMICS AND RESOURCE
MANAGEMENT**

COURSE CODE: SAB 140

COURSE TITLE: FARM POWER AND MACHINERY

DATE: 3RD MAY 2016

TIME: 2PM – 4PM

INSTRUCTIONS TO CANDIDATES

Answer Question One in Section A and Any other TWO (2) Questions in Section B

This Paper Consists of 2 Printed Pages. Please Turn Over. ►

KIBU observes ZERO tolerance to examination cheating

SECTION A: *ANSWER ALL QUESTIONS IN THIS SECTION (30 MARKS)*

1. Discuss the sequence of events occurring in the cylinder in one power cycle of a 4-stroke CI engine. (12 marks)
2. State and briefly explain the **FIVE** basic functions performed by row-crop planters. (10 marks)
3. Describe **FOUR** situations when you would advice a farmer to use a disc plough and not a mouldboard plough for primary tillage? (8 marks)

SECTION B: *ANSWER ANY TWO QUESTIONS IN THIS SECTION (40 MARKS)*

4. (a) Describe the operation of a wheat combine harvester. (10 marks)
(b) Explain battery ignition in SI engines. (10 marks)
5. (a) Discuss the differences between a diesel engine and a petrol engine (10 marks)
(b) Discuss the merits and demerits of animal power. (10 marks)
6. (a) Explain the operation of a combined air-water engine cooling system. (10 marks)
(b) Discuss what may be done to either increase and to reduce application rate of a boom sprayer. (10 marks)

END