Roll No.							Total No. of Pages: 02

Total No. of Questions: 09

B.Sc.(Agriculture) (2014 & Onwards) (Sem. – 4) FARM POWER AND MACHINERY

M Code: 72760 Subject Code: BSAG-408 Paper ID: [72760]

Time: 3 Hrs. Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION A

- 1. Write short notes on:
 - a) Indicated horse Power
 - b) Mechanical efficiency
 - c) Timing gear
 - d) Firing order
 - e) Planter
 - f) Carburetor
 - g) Differential
 - h) Crawler tractor
 - i) Back furrow
 - j) Tilt angle

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SECTION B

- 2. What are the limiting factors in farm mechanization in India?
- 3. With a neat diagram describe the fuel system of a diesel engine.
- 4. What is seed drill? Describe the process of calibration of seed drill.
- 5. Why a tractor needs a clutch? What is the principle of friction clutch?
- 6. What are the different types of sprayers? Describe the working of knapsack type sprayer with the help of a neat sketch.

SECTION C

- 7. Explain the working of four stroke cycle engine with neat sketches. Compare the advantages and disadvantages of four stroke cycle engine and two stroke engines.
- 8. A four bottom 40 cm M.B. plough has a working depth of 15 cm and draft of 1500 kg. It is working at a speed of 5 km/hr. with the field efficiency of 75 %. Find:
 - a) Unit draft
 - b) Drawbar power
 - c) Theoretical field capacity
 - d) Actual field capacity.
- 9. Describe the working principle of a combine. Name the important parts of a combine. Give grain flow diagram of a combine.

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