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Total No. of Questions : 09

B.Sc. Agriculture (2014 & Onwards) (Sem.-4)

FARM POWER & MACHINERY

Subject Code : BSAG-408

M.Code : 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) Belt Power
- b) Mechanical efficiency
- c) Timing gear
- d) Firing order
- e) Planter
- f) Dibbling
- g) Differential
- h) Power tiller
- i) Centre of resistance
- j) Tilt angle

SECTION-B

2. What are the scopes of farm mechanization in India?
3. With a neat diagram describe the fuel supply 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 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 two 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.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.