

**Subject: Special Purpose Vehicle****Paper : AUE - 410****Time : 3 Hours****Max. Marks: 60**

Roll No \_\_\_\_\_

**Section - A is compulsory. Attempt any four questions from section – B and any two questions from section – C.**

**SECTION – A****2X10 = 20**

1. a) What are the applications of special purpose vehicles?
- b) What is the function of a dumper?
- c) What is a draw bar?
- d) What is a articulated vehicle?
- e) What is pre lubrication?
- f) What is a gear train?
- g) What is the condition of maximum traction?
- h) How is driving thrust produced?
- i) How are the valve trains lubricated?
- j) Which type of braking system is used in a farm tractor?

**SECTION – B****5X4 = 20**

2. What is a special purpose vehicle and how it is classified? Discuss.
3. Explain the drive line of any special purpose vehicle with sketch.
4. What are the safety devices used in mobile cranes? Discuss.
5. Draw and label the pneumatic control circuit used in any special purpose vehicle.
6. What is a PTO shaft? Discuss the function of the shaft with sketch.

**SECTION – C****10X2 = 20**

7. Discuss the constructional features of a fork lift.
8. Explain the braking system of a farm tractor with line diagram.
9. Write a note on Multi-axle vehicle.

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