

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VIII • EXAMINATION – SUMMER 2013

Subject Code: 180203**Date: 13/05/2013****Subject Name: Special Purpose Vehicles****Time: 10:30 am TO 01:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Classify the special purpose vehicle giving application of each. **07**
(b) Explain Basic Crane unit with different crane attachment. **07**
- Q.2** (a) Explain hydraulic system of tractor with neat sketch. **07**
(b) Explain the bucket wheel excavator with its main parts. Write the advantages of the bucket wheel excavator. **07**
- OR**
- (b) List and explain the various implements used with tractor. **07**
- Q.3** (a) Explain Forklift operation techniques with its use. **07**
(b) Explain Safety consideration during crane operations. **07**
- OR**
- Q.3** (a) Explain Track-Mounted Excavator in detail. **07**
(b) Write a short note on wheel loader with its applications. **07**
- Q.4** (a) Explain gear box used in tractor with neat sketch. **07**
(b) List the types of crane and explain truck crane in detail. **07**
- OR**
- Q.4** (a) How the power shovel is selected? Write the factors which affect the output of a power shovel. **07**
- Q.4** (b) Write short note on tracked vehicle & articulated vehicle. **07**
- Q.5** (a) Classify and explain multi axle vehicles. **07**
(b) List types of Hybrid Vehicles and explain gas turbine engine. **07**
- OR**
- Q.5** (a) List the main components of an electric vehicle and give the advantages and disadvantages of an electric vehicle. **07**
(b) Explain hydraulic and cable control system of bulldozer. **07**
