

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER – VIII. EXAMINATION – WINTER 2016

Subject Code: 180203**Date: 21/10/2016****Subject Name: Special Purpose Vehicles****Time: 02:30 PM to 05:00 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 vehicles and give the application of each. **07**
 (b) Write the advantages and disadvantages of hybrid car. And explain hydraulic braking system. **07**
- Q.2** (a) Explain construction and working principle of mobile crane with neat sketch. **07**
 (b) Explain different attachments of wheel loaders with neat sketch. **07**
- OR**
- (b) What is PTO shaft? Explain 3 standard types of PTO shaft. **07**
- Q.3** (a) Explain purpose, construction and working of Tippers in detail. **07**
 (b) Explain any two steering gear box with neat sketch. **07**
- OR**
- Q.3** (a) Give the classification of tractor and explain various implements used with tractor. **07**
 (b) Explain in detail tracked vehicle used in armed force. **07**
- Q.4** (a) Explain different types of hybrid electric vehicle. **07**
 (b) Describe dozer. Explain different types of dozer blades. **07**
- OR**
- Q.4** (a) Write short note on multi axle vehicles. **07**
 (b) Explain Safety consideration during crane operations. **07**
- Q.5** (a) Explain Track-Mounted Excavator in detail. **07**
 (b) What is “Ballasting” of tractor? Give its advantages and explain the methods of Ballasting. **07**
- OR**
- Q.5** (a) Explain the fifth wheel arrangement of Truck semi-trailer and different application of semi-trailers. **07**
 (b) Explain the different types of lubrication system. **07**
