

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER – VI (NEW).EXAMINATION – WINTER 2016

Subject Code: 2160207**Date: 25/10/2016****Subject Name: Alternative fuel and power systems****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) Explain combustion process & production process of methanol. **07**
(b) Write a short note on biodiesel production process. **07**
- Q.2** (a) Describe properties & production process of CNG as an engine fuel. **07**
(b) Draw layout of solar powered vehicle and explain it. **07**
- OR**
- (b) Discuss production and storage of hydrogen. **07**
- Q.3** (a) Discuss about Fuel cell vehicle with sketch. **07**
(b) Write short note on Esterification. **07**
- OR**
- Q.3** (a) With neat sketch discuss construction and working of electric vehicle. **07**
(b) Explain layout of hydrogen car. **07**
- Q.4** (a) Discuss Eco friendly plastic fuels(EPF) **07**
(b) Discuss Multi fuel engine. **07**
- OR**
- Q.4** (a) What is fuel cell? Explain its power rating and performance. **07**
(b) Describe important components of hybrid vehicle. **07**
- Q.5** (a) What is emulsification of alcohol with diesel? Describe emission improvement by blending of alcohol with diesel. **07**
(b) Explain use of LPG as fuel for I.C. engines. **07**
- OR**
- Q.5** (a) Write merits and limitations of Hydrogen as an automotive fuel. **07**
(b) Discuss “scope of availability of fossil fuel in future”. **07**
