

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV(OLD) – EXAMINATION – SUMMER 2019****Subject Code:141904****Date:25/05/2019****Subject Name: Non - Conventional Energy Sources****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) Explain in brief Non-Conventional Energy Sources with special reference to Indian context. **07**
(b) Explain working & construction of box type Domestic Solar Cooker. **07**
- Q.2** (a) Explain advantages & disadvantages of wind energy. **07**
(b) Explain Solar distillation with neat sketch. **07**
- OR**
- (b) Explain solar winter green house with neat sketch. **07**
- Q.3** (a) Explain construction & working of KVIC biogas plant. **07**
(b) Write advantages & disadvantages of solar energy to Indian context. **07**
- OR**
- Q.3** (a) Explain in brief various factors affecting production of biogas. **07**
(b) Explain vertical axis Darrieus type rotor wind turbine with neat sketch. **07**
- Q.4** (a) Describe MHD open cycle system with schematic diagram. **07**
(b) Write down advantages & disadvantages of tidal power plant. **07**
- OR**
- Q.4** (a) Explain open cycle or Claude cycle OTEC system **07**
(b) Write down advantages & disadvantages of MHD System. **07**
- Q.5** (a) Define energy management. Write short note on 'Energy Audit'. **07**
(b) Explain Hydrogen production method & Explain any one in detail. **07**
- OR**
- Q.5** (a) Explain Vapour dominated or Dry steam system of Hydrothermal resources. **07**
(b) Write down short note on Solid Oxide Fuel Cell (SOFC). **07**
