

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-I &II (SPFU) EXAMINATION – SUMMER-2019****Subject Code: TEE010****Date: 31/05/2019****Subject Name: RENEWABLE ENERGY****Time: 10:30 AM TO 01:30 PM****Total Marks: 70****Instructions:**

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

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| Q.1 | (a) | Discuss advantages and disadvantages of solar energy. | 07 |
| | (b) | What is wind farm? Explain wind generator with its characteristics. | 07 |
| Q.2 | (a) | Compare renewable energy sources with non renewable energy sources. | 07 |
| | (b) | Explain site selection procedure for wind mills for power generation. | 07 |
| Q.3 | (a) | Explain microhydel system with its operating principle. | 07 |
| | (b) | Explain OTEC energy for power generation. | 07 |
| Q.4 | (a) | Explain basic operational principles of solar cells. | 07 |
| | (b) | Explain in detail the applications of Solar Photovoltaic systems | 07 |
| Q.5 | (a) | Explain wood gasifier with its advantages. | 07 |
| | (b) | Compare solar energy with wind energy with respect to electrical power generation. | 07 |
| Q.6 | (a) | Explain tidal energy with its applications. Also write its advantages and disadvantages. | 07 |
| | (b) | Explain different renewable energy sources development in India. | 07 |
| Q.7 | (a) | Explain Biomass Pyrolysis process. | 07 |
| | (b) | Discuss about Stages of anaerobic digestion process | 07 |
