

PARUL UNIVERSITY
COLLEGE OF AGRICULTURE
B.Sc.(Hons.) Agriculture, Summer 2018 - 19 Examination

Semester: 6
Subject Code: 20106351
Subject Name: Renewable Energy

Date: 10/04/2019
Time: 10:30 am to 1:00 pm
Total Marks: 60

Instructions

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Do as Directed.**A. Fill in the blanks. (Each of 1 marks)****(10)**

1. The prime source of water on earth is
2. is used commonly in India to generate electricity.
3. The full form of CNG is
4. The full form of LPG is
5. Biogas contain % of methane
6. The unit of Energy is
7. With increase in height, the wind speed will
8. The chemical formula for methane is
9. Solar cell is used to convert solar energy into
10. Energy derived from hot spots beneath earth is called

B. Multiple choice type questions. (Each of 1 mark)**(10)**

1. Most of the renewable energy used on earth today originally came from

a) The sun	c) Soil
b) The moon	d) Oceans
2. Which one is not fossil fuel?

a) Coal	c) Oil
b) Geothermal	d) Natural Gas
3. Which among the following is conventional energy source?

a) Solar energy	c) Geothermal energy
b) Wind energy	d) Petroleum
4. Anemometer is used to measure

a) wind direction	c) wind speed
b) wind rotation	d) all of the above
5. Which of the following is a renewable source of energy?

a) Coal	c) Petroleum
b) Sun	d) Both (a) and (b)
6. Bio-diesel is produced from oils or fats using the process known as

a) Transaction	c) Transesterification
b) Transformation	d) Transportation
7. Which plant has been cited as a high yield source of bio – diesel?

a) Jatropha	c) Sesame
b) Mustard	d) All the above
8. Solar water heater converts

a) Solar energy to thermal energy	c) Solar energy to electrical energy
b) Solar energy to mechanical energy	d) None

9. Solar dryer is usesfor drying purpose.
- a) Wind energy
 - b) Solar energy
 - c) Electricity
 - d) Geothermal energy
10. Wind is used to
- a) Draw underground water
 - b) Generate electricity
 - c) Operate flour mills
 - d) All of the above

Q.2 Do as Directed.

A. Define the following. (Any five)

(05)

1. Solar Energy.
2. Wind Energy
3. Solar lantern
4. Downdraft Gasifier
5. Photovoltaic cell
6. Parabolic solar cooker
7. Solar still

B. Answer the following. (Any five)

(05)

1. Enlist renewable energy sources.
2. Enlist types of gasifier.
3. Give the name of at least three appliances in which solar energy converted to thermal energy.
4. Is Geo thermal a renewable energy?
5. Do biofuels have any social impact?
6. Are fossil fuels renewable?
7. Is peat biomass or a fossil fuel?

Q.3 Write short notes. (Any five)

(15)

1. Solar Energy
2. Explain Biodiesel production from Jatropha Seeds
3. Construction of Wind Mill
4. Types of Biogas Plant
5. Draw neat sketch of Biogas Plant
6. Agriculture wastes

Q.4 Answer the following in detail. (Any three)

(15)

1. Explain downdraft gasifier with the help of neat sketch.
2. Write a note on Indirect Solar Dryer
3. Write a note on Parabolic Solar Cooker
4. Differentiate between On shore and Off shore Wind Mill