



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food. Engg.) 2016 Admission
VI Semester Final Examination-June 2019

Fden.3208

Energy for food Industries (1+1)

Marks: 50
Time: 2 hours
(10x1=10)

I Fill in the Blanks

- 1 Solar cell is used to convert solar energy into
- 2 Major constituent of Biogas is
- 3 Anaerobic digestion takes place in the absence of
- 4is an example for secondary energy source.
- 5 The value of solar constant is kWm^2

State True or False

- 6 Energy available in fuels is stored as chemical energy.
- 7 Coal is a renewable source of energy.
- 8 Unreliable supply is one of the disadvantages of renewable energy sources.
- 9 Green house gases are responsible for global warming.
- 10 Renewable sources are inexhaustible.

II Write Short notes on any FIVE of the following

(5x2=10)

- 1 Primary energy sources with examples
- 2 Renewable energy sources with examples
- 3 Non-renewable energy with examples.
- 4 Characteristics of sun.
- 5 Mention the components in solar photovoltaic (SPV) water pumping system.
- 6 Thermo chemical gasification of biomass.
- 7 Two examples of waste heat recovery.

III Answer any FIVE of the following.

(5x4=20)

- 1 Advantages of PV system.
- 2 Cabinet type solar dryer with neat sketch.
- 3 Solar Distillation with neat sketch.
- 4 Energy production from Municipal Solid Wastes.
- 5 Disadvantages of solar energy.
- 6 Different types of wind turbines.
- 7 Energy management and its objectives

IV Answer any ONE of the following

(1x10=10)

- 1 Solar dryers for drying of fruits and vegetables
- 2 Performance evaluation of furnaces.
