



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food. Engg.) 2015 Admission
VI Semester Final Examination-July-2018

Fden.3208

Energy for food Industries(1+1)

Marks: 50

Time: 2 hours

(10x1=10)

I Fill in the Blanks

- 1 The efficiency of various types of collectors _____ with increasing temperature.
- 2 The value of Solar Constant is -----
- 3 Solar cells convert light energy into-----
- 4 Solar still is a device used for -----
- 5 The amount of energy available in the wind at any instant is proportional to ___ of the wind speed.

State True or False

- 6 Maximum efficiency is obtained in Flat plate collector than Paraboloid dish collector.
- 7 The angle made by the plane surface with the horizontal is known as Slope.
- 8 Solar photovoltaic cells are made of steel.
- 9 Wind mill works on the principle of Rotation.
- 10 Jatropha is also called as biodiesel plant.

II Write Short notes on any FIVE of the following

(5x2=10)

- 1 Advantages of use of renewable source of energy.
- 2 Define solar time.
- 3 Distinguish between flat plate and focusing type collector
- 4 What is biomass?
- 5 State the causes of problems in wind mill
- 6 Define power coefficient
- 7 What is meant by biomass gasification?

III Answer any FIVE of the following.

(5x4=20)

- 1 What is meant by renewable energy sources? Mention its advantages and limitations
- 2 What are the performance indices of a solar collector?
- 3 What are the features preferred for the wind mill site?
- 4 Explain about the applications of solar PV system
- 5 Bio mass Gasification reactions
- 6 Explain the principle of conversion of solar energy into heat
- 7 Discuss briefly about solar pumps

IV Write an essay on any ONE of the following

(1x10=10)

- 1 Discuss on solar dryes with diagrams
- 2 Explain biomass gasifiers with neat diagram.
