

- Q.29 What are the basic criteria for site selection for setting up of biogas plant?
- Q.30 Explain the maintenance and performance of wind mill.
- Q.31 Describe the benefits of improved cooking stoves over the traditional cooking stoves.
- Q.32 Enlist some methods of conserve energy in domestic sector and in agriculture sector.
- Q.33 Explain the constructional details of solar pump.
- Q.34 What are the basic criteria for site selection of wind mill?
- Q.35 Write advantages and disadvantages of non-conventional source of energy.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain the working and constructional details of a floating holder type biogas plant with the help of suitable sketch.
- Q.37 Explain the importance and scope of energy conservation. Give suggestion to minimize the wastage of energy.
- Q.38 Explain the working and construction of flat plate box solar cooker with the help of suitable sketch. Also write its advantages and disadvantages.

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**4th Sem / Agri
Subject:- Renewable Sources of Energy / Non-Conv
Engy. Resources**

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Renewable source of energy is
a) Exhaustible b) Inexhaustible
c) Nuclear based d) Biogas based
- Q.2 Tidal energy is direct associated with
a) Wind b) Sea
c) Sun d) All of these
- Q.3 The ratio of the speed at the tip of rotor to the wind speed is called
a) Wind speed ratio b) Rotor speed ratio
c) Tip speed ratio d) All of these
- Q.4 The KVIC biogas plant is
a) Fixed type b) Floating type
c) Wooden type d) None of these
- Q.5 An instrument used to measure the wind speed is called

- a) Dynamometer b) Hygrometer
c) Anemometer d) Thermometer

Q.6 The term biomass is related to

- a) Chemicals b) Wind
c) Inorganic matter d) Organic matter

Q.7 The proportion of wet cow dung and water feed to the digester is

- a) 1:1 b) 1:2
c) 1:3 d) 1:4

Q.8 Important element of solar cells is

- a) Silicon b) Silver
c) Aluminum d) Argon

Q.9 A mirror used to reflect sunlight in box type solar cooker is

- a) Convex b) Concave
c) Plane d) All of these

Q.10 Hydropower plants are located in

- a) Hilly areas b) Desert area
c) Plains d) Deltas

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 What is greenhouse effect?

Q.12 OTES stands for _____

Q.13 WECS stands for _____

Q.14 Define anaerobic digestion.

Q.15 Define insulation.

Q.16 Name any two energy conservation devices.

Q.17 The single solar cell voltage is about _____

Q.18 Define biomass.

Q.19 For working a wind mill, the minimum speed of wind should be _____

Q.20 Write any Govt. Scheme that promotes the uses of renewable energy.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Explain the significance of non-conventional energy resources.

Q.22 Describe the construction of solar water heater.

Q.23 What are the applications of SPV module?

Q.24 Write a short note on farm residue management.

Q.25 What is the difference between fixed dome type biogas plants and floating type biogas plants?

Q.26 Enlist various applications of solar energy.

Q.27 Describe principle of thermal collection and storage.

Q.28 Describe the basic components of wind energy conversion system.