

- Q.30 Explain the constructional detail of Solar pump.
 - Q.31 What is the criteria of site selection for setting up of biogas plant?
 - Q.32 Describe the principle of thermal collection and storage.
 - Q.33 Why do we need to develop alternate energy sources?
 - Q.34 Explain the maintenance and performance of wind mill.
 - Q.35 What is the scope of renewable energy sources in India?

SECTION-D

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

- Q.36 Explain the importance and scope of energy conservation. Give suggestion to minimize the wastage of energy. Also suggest methods to conserve energy in agriculture sector.

Q.37 What is wind mill? Give the classification of wind mills? Explain the problems associated with utilizing wind energy?

Q.38 Explain the principle and constructional detail of a Floating holder type biogass plant .

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Roll No.

4th Sem / Agri Engg.

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 Which of the following is a conventional resources?

 - a) Solar
 - b) Wind
 - c) Coal
 - d) Biomass

Q.2 Important element of Solar cells is

 - a) Aluminium
 - b) Silver
 - c) Germanium
 - d) Silicon

Q.3 Which is the application of biogas plants?

 - a) Lamps
 - b) Burner
 - c) Heating plate
 - d) All of these

Q.4 Photovoltaic cell convert solar energy into

 - a) Chemical
 - b) Electric
 - c) Mechanical
 - d) Heat

Q.5 The combustion of fuel produces

 - a) Hydrolysis
 - b) Steam
 - c) Fuel gas
 - d) Carbon monoxide

- Q.6 Hydropower plants are located in
a) Hilly Areas b) Desert area
c) Plains d) None of these
- Q.7 Geothermal energy is the thermal energy present
a) On the surface of the earth
b) on the surface of ocean
c) In the interior of earth
d) None of the above
- Q.8 Which is not a constituent of biogas?
a) Hydrogen sulphide b) Carbon dioxide
c) Methane d) Argon
- Q.9 Which renewable source generate maximum power in india
a) Wind b) Biomass
c) Geothermal d) Solar
- Q.10 The gas holder used in floating gas type biogas plant is :
a) Spherical b) Inverted drum
c) Conical d) None of these

SECTION-B

Note: Objective type questions. All questions are compulsory. $(10 \times 1 = 10)$

- Q.11 Define Farm Residue.
Q.12 Define Digested slurry.

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- Q.13 Define anaerobic digestion.
Q.14 Define Feed stock.
Q.15 Name two energy conservation devices.
Q.16 What is a solar cell?
Q.17 Give the importance of solar energy?
Q.18 Give the examples of non conventional energy sources.
Q.19 Define Green house effect.
Q.20 List two govt. departments involved in promotion of renewable energy sources.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. $(12 \times 5 = 60)$

- Q.21 List different appliances of biogas plants.
Q.22 What is the significance of solar energy?
Q.23 Write a short note on farm residue management.
Q.24 Describe the working of Evacuated tube type solar water heater.
Q.25 List the raw materials available for biogas production.
Q.26 What are the applications of SPV module?
Q.27 List various applications of solar energy.
Q.28 Compare the flat plate type and concentrating type collector.
Q.29 Explain the criteria for site selection of wind mill.

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