



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)

Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B

Coimbatore - 641 043, Tamil Nadu, India

**Bachelor's Degree Examination – January 2021
V Semester**

Class : III UG
Major : Interior Design and Resource Management

Time : 3 Hours
Max. Marks: 100

18BIDC17 Alternate Sources of Energy

Part A

10 x 1 = 10

Choose the Correct Answer

- India stands as the second largest country in the generation of _____ power.
a. Wind
b. Solar
c. Tidal
d. Thermal
- Which among these is not a renewable energy resources?
a. Biomass
b. Solar
c. Wave power
d. Coal
- The fuel developed from natural and organic waste is known as
a. Solar
b. Biomass
c. Wind
d. Thermal
- The solar cooker saves
a. Electricity
b. Energy
c. Heat
d. Time
- Usage of alternative energy resources reduces
a. Disease
b. Pollution
c. Infection
d. Decontamination
- Solar photovoltaic system use cells to convert sunlight in to
a. Heat
b. Charge
c. Spark
d. Electricity
- Biogas produces organic _____ as by product
a. compost
b. Chemicals
c. Synthetic
d. Pesticides
- Which among these is not a type of biogas plant?
a. Fixed dome
b. Floating drum
c. Horizontal
d. Vertical drum
- Wind turbines can be seen more in _____ areas of the world.
a. Rural
b. Urban
c. Town
d. coastal
- The _____ gas produced in biogas plant which is inflammable is
a. methane
b. nitrogen
c. carbondioxide
d. oxygen

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. Briefly discuss the importance of energy.
(or)
- 11.b. Differentiate between conventional and non-conventional energy resources.
- 12.a. Outline the merits and demerits of using wave energy as an alternative source.
(or)
- 12.b. Determine the importance of alternative energy resource.
- 13.a. Write on the working principle of a solar water heater with illustration.
(or)
- 13.b. Explain how alternate energy sources is used in pumping water.
- 14.a. Discuss the way by which a consumer can save energy using biogas in residence.
(or)
- 14.b. Write down the importance of biogas technology.
- 15.a. Write briefly on the dual goals of conservation of energy resources.
(or)
- 15.b. Draw and explain vertical axis machine of wind power.

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 16.a. Classify in detail the energy scenario in India.
(or)
- 16.b. Discuss a detailed note on environmental impact of the uses of fossil fuel.
- 17.a. Elaborate the points you will consider before installation of biogas as an alternate energy sources.
(or)
- 17.b. Explain with illustration any three ways of tapping alternative sources of energy for household.
- 18.a. Draw and explain the working principle of solar cooker.
(or)
- 18.b. Justify the ways by which solar photovoltaic cells helps in conserving energy.
- 19.a. Write a detailed note on principles of biogas technology.
(or)
- 19.b. Explain any two types of biogas plant and Justify how it helps in the reduction of pollution.
- 20.a. Draw and explain the horizontal axis machine (wind mill) in generation of energy.
(or)
- 20.b. Explain the major applications of wind power.
