

**Avinashilingam Institute for Home Science and Higher Education for Women  
Coimbatore - 641 043**

**Continuous Internal Assessment II – April 2025  
Semester II**

**Class : I PG**

**Time : 2 Hours**

**Major : Interior Design and Resource Management**

**Max. Marks : 60**

**23MIRC09 Renewable Energy**

CO1: Appraise the significance and use of energy in different forms

CO2: Use various renewable energy devices and conserve fossil fuels

CO3: Live as good responsible citizens contributing to global energy conservation endeavors

CO4: Enjoy the benefits of using renewable energy sources

CO5: Formulate projects and approach funding agencies in future

**Part A**

**6 x 1 = 6**

**Choose the Correct Answer**

1. A form of energy obtained from ocean is (CO3K4)  
a. geo thermal energy    b. tidal energy    c. nuclear energy    d. wind energy
2. Energy stored as heat in the earth is (CO4K2)  
a. solar energy    b. biomass    c. biogas    d. geo thermal energy
3. "Geothermal" means (CO3K3)  
a. "Geo" means "Fossil" and "Thermal" means "Fuel"    b. "Geo" means "Plants" and "Thermal" means "Oil"  
c. "Geo" means "Earth" and "Thermal" means "Heat"  
d. "Geo" means "Oil" and "Thermal" means "Drill"
4. Biogas is obtained from (CO3K1)  
a. aerobic    b. anaerobic    c. non aerobic    d. bio aerobic
5. The composition of methane in biogas is (CO4K2)  
a. 55 to 65 %    b. 50 to 55 %    c. 40 to 45 %    d. 45 to 50%
6. The irregular heating of the atmosphere by the sun causes (CO5K2)  
a. wind    b. wave    c. tide    d. bio energy

**Part B**

**3 x 6 = 18**

**Answer ALL questions**

**Each answer should not exceed 400 words or two pages**

- 7.a. Explain the working principles of tidal plants (CO3K2)  
(or)
- 7.b. Describe the types of geothermal resources (CO3K3)
- 8.a. State the utilization of industrial and municipal wastes, energy from agricultural wastes (CO3K2)  
(or)
- 8.b. Explore the prospects for wind, tidal and geothermal energy (CO2K4)
- 9.a. Discuss the factors influencing the biogas production (CO3K3)  
(or)
- 9.b. Enumerate the working principle of tidal plants (CO4K3)

**Part C**

**3x12=36**

**Answer ALL questions**

**Each answer should not exceed 800 words or four pages**

- 10.a. Describe the concept, advantages and challenges of geothermal energy (CO5 K2)  
(or)
- 10.b. Identify the challenges and opportunities for use of biomass energy (CO4K4)
- 11.a. Write a detailed note on conversion of biomass energy (CO4K3)  
(or)
- 11.b. Describe the various types of biogas plants, their working principles and mechanism with illustration (CO2K2)
- 12.a. How will you plan a residence by incorporating simple renewable energy devices and estimate its cost (CO5K5)  
(or)
- 12.b. Elaborate on the agencies and organisations promoting renewable energy (CO5 K2)

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**Staff In charge : D.Sumathi**