

Cat. No: Engg.3204
 Title: Renewable Energy (1+0)

Marks: 80
 Time: 3 hours

- I. Fill up the blanks/Pick the correct answers: (10x1=10)
1. Biogas is a mixture of ----- and Carbon dioxide.
 2. Janta and Deenbandhu biogas plants are examples of -----biogas plant.
 3. The optimum temperature for maximum production of biogas from slurry is -----
 4. Wind speed is measured by -----.
 5. The energy in wind is proportional to the ----- of its velocity.
 6. The best orientation of a solar plate collector is facing -----.
 7. Solar radiation absorbed by the atmosphere is about
 a. Zero % b. 5% c.10-20% d. More than 50%
 8. Pyranometer is used for collecting
 a. Wind Energy b. Tide energy c. Fusion energy d. Solar energy
 9. Digester is an essential part of
 a. M.H.D generator b. Fusion energy system c. Wind energy conversion system d. Biomass energy conversion system
 10. The main constituent of producer gas is
 a. Carbon monoxide b. Freon c. Carbon dioxide d. Methane

- II. Write short notes on (any ten) (10x3=30)
1. Anaerobic Digestion
 2. Bio fuels
 3. Gasification
 4. Pyrolysis
 5. Solar Cooker
 6. Photovoltaic cell
 7. Pye heliometers
 8. Wind Pump
 9. Solar Pond
 10. Vertical Axis Rotor
 11. Acid Formers
 12. Wind mill

- III. Write short essays on any six of the following (6x5=30)
1. Biomass and its multi-purpose utilization
 2. Phenomena of wind generated on earth's surface.
 3. Non- Conventional Sources of energy
 4. Advantages and disadvantages of photo-voltaic solar energy conversion.
 5. Different types of Gasifiers
 6. Briquettes and types of Briquetting.
 7. Constraints in production of liquid bio fuels.
 8. Integration of renewable energy systems.ods

- IV Write essay on (any one) (1x10=10)
1. Construction and working of a fixed dome type biogas plant with neat sketch.