

SCIM GOVERNMENT COLLEGE TANUKU W.G.Dt

RENEWABLE ENERGY

UNIT-I

1. Explain the role of energy in economic and social development? (10M)
2. Explain how the environmental degradation due to energy production and utilization? (10M)
3. Write an essay on depletion of ozone layer? (10M)
4. Explain energy flow diagram to the earth? (5M)
5. Explain different forms of energy? (5M)
6. Write a short note on air pollution? (5M)
7. Write a short note on water pollution? (5M)

UNIT-II

1. How the energy is consumed in various sectors? (10M)
2. Explain different energy resources? (10M)
3. Explain the nuclear energy –promise and future? (10M)
4. What are the energy resources available in India-explain? (10M)
5. Explain how the energy as a factor of limiting growth
6. Explain how the energy is consumed in rural and urban areas? (5M)
7. Write a short note on nuclear and hydroelectric power? (5M)
8. Write a short note on oil and natural gas? (5M)
9. What are the different types of energy sources? ? (5M)
10. What is the need for use of new and renewable energy sources? (5M)

UNIT-III

1. Explain the construction and working of solar water heater? (10M)
2. Define solar cooker and explain different types of solar cooker? (10M)
3. What is the principle of wind energy conversion and explain the different components of wind turbine? (10M)
4. What are the different types of solar cells?(5M)
5. Explain the spectral distribution of radiation?(5M)
6. What are the applications of solar water heater?(5M)
7. What are the operational characteristics of wind turbine?(5M)
8. What are the applications of wind energy?(5M)

UNIT-IV

1. What is the principle of ocean thermal energy conversion (OTEC) and explain tidal power generation (10M)
2. What are hydrogen production methods and explain electrolysis of water (10M)
3. What are tidal energy conversion technologies? (5M)
4. How to produce energy from waves? (5M)
5. What are the uses of hydrogen fuel? (5M)
6. Write a short note on history of hydrogen? (5M)

UNIT-V

1. Explain the aerobic and anaerobic bioconversion process?(10M)
2. Explain the different methods to derive energy from biomass?(10M)
(Fermentation, Pyrolysis, Gasification and Combustion etc.,)
3. What are the sources of biomass?(5M)
4. What are the properties of biomass?(5M)
5. What are the characteristics of biomass?(5M)
6. Explain the conversion of biomass into fuel?(5M)
7. Write a short note on pyrolysis?(5M)
8. Write a short note on combustion?(5M)
9. Write a short note on gasification?(5M)
10. Write a short note on fermentation?(5M)