

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code : 51058

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2014.

Eighth Semester

Mechanical Engineering

080120068 — ALTERNATIVE ENERGY SOURCES

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define Solar Radiation.
2. What is a solar cell?
3. What is a hybrid System?
4. State the Applications wind energy storage.
5. Define Bio- Energy.
6. Define Digesters.
7. What is meant by Tidal Energy?
8. State the classifications of Turbines.
9. Define: Fuel cells.
10. State the applications of hydrogen Energy.

PART B — (5 × 16 = 80 marks)

11. (a) Explain in detail about the fundamentals of Photo voltaic conversion.

Or

- (b) Describe about Measurements of solar Radiation and sun shine.

12. (a) Explain about wind Energy Storage system in detail.

Or

(b) Describe in detail about wind Energy generators and its performance.

13. (a) Describe about Ethanol production in detail

Or

(b) Explain in detail about Bio gas plant with a neat sketch.

14. (a) Explain about open and closed OTEC cycles.

Or

(b) Describe in detail about Geo thermal energy sources.

15. (a) Briefly Explain about New Energy sources.

Or

(b) Explain in detail about Fuel cells and its types.
