

R09

Code No: C2107

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH I SEMESTER EXAMINATIONS, APRIL/MAY 2012
SOLAR ENERGY TECHNOLOGY
(THERMAL ENGINEERING)**

Time: 3hours

Max.Marks:60

**Answer any five questions
All questions carry equal marks**

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1. Explain why solar energy is considered as an alternate option and give its potential in context to India.
2. Compare and contrast the Flat plate collector and cylindrical parabolic collector
3. Discuss in detail the various parameters to be considered in detail for the design of Solar water heating systems and its efficiency
4. With help of neat a diagram explain operation of a Central Tower receiver power plant and its control parameters.
5. Explain with the aid of a diagram, the different process involved in Silicon Solar cell processing
6. Explain different types of solar cells based on the material used for their fabrication.
7. Explain different Semiconductor material and properties of Solar cells
8. Explain different approaches used for comparing the relative costs of the solar and conventional systems

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