

### Sample questions for EE4511 quiz

Q1. The photovoltaic effect discovered in France in the 19th century. But where was the first practical silicon solar panel demonstrated?

- ☒ A. Bell Labs.
- B. Thomas Edison's lab.
- C. The Institute for Advanced Study in Princeton
- D. Xerox's Palo Alto Research Center in California

Q2. The world's most abundant energy source is the sunlight continually bathing the Earth. Just how much solar energy is that?

- A. 468 trillion gigawatts
- ☒ B. 173,000 terawatts
- C. 5.592 quadrillion lumens
- D. 1388 terawatts

striking Earth

Q3. More energy from the sun strikes the Earth in \_\_\_\_\_ than all of humanity uses in a year.

- A. One day
- ☒ B. One hour
- C. One minute
- D. One second

Q4. What form of energy do concentrating solar power technologies use to generate electricity?

- A. Static
- B. Kinetic
- ☒ C. Thermal
- D. Chemical

~ 400°C

Q5. The heat in a typical concentrating thermal power plant is approximately in the range of ....

- A. 80-100 °C
- B. 150-200 °C
- ☒ C. 400-500 °C
- D. 600-700 °C

Q6. The function of the regenerator in a Stirling engine is to:

- A. Push the hot piston to left
- ☒ B. Recycle the heat within the engine
- C. Absorb heat from the external source

Q7. Where would you expect to find CSP power plants?

- A. Sweden
- ☒ B. Spain
- C. New Zealand
- D. Canada

Q8. Among the renewables, what are the top three energy sources, in order?

- NOT tested.
- ☒ A. Biomass, wind, hydropower
  - B. Solar, wind, biomass
  - C. Hydro, wind, solar
  - D. Wind, solar, geothermal