Paper / Subject Code: 56611 / Elective II: Green Computing

(3 Hours) [Total Marks: 80]

N.B.: 1) Question No.1 is **compulsory.**

- 2) Attempt any three out of remaining five.
- 3) Figures to the right indicate full marks.
- 1. (a) Explain in detail the climate change, global warming, greenhouse gases and greenhouse effect with suitable example.
 - (b) What is meant by green IT? Why is it gaining greater relevance and importance ? (10)
- 2. (a) How software impact the environment and the energy consumption of computing (10) systems?
 - (b) Discuss the concept of Greening computers entire life cycle with suitable diagram. (10)
- 3. (a) What are the different stages in the lifecycle of an electronic device? Explain the impact of every stage on environment.
 - (b) Which environmentally sensitive materials are typically used in the manufacturing of a product like notebook and smart phones? Discuss the alternative for each material.
- 4. (a) Which are the programming methods used to achieve computational efficiency? (10)
 - (b) What is fueling the growth for data center capacity? (10)
- 5. (a) Discuss the different power states of a hard disk. (10)
 - (b) What are the benefits of Energy Efficient Networks? (10)
- 6. (a) Explain the business dimensions for green IT transformation. (10)
 - (b) Describe in detail the green building standards and green data centers. (10)