

PRACTICAL- 5

Q) Using Practical examples, describe green computing. List and explain the steps that you take to contribute to green computing

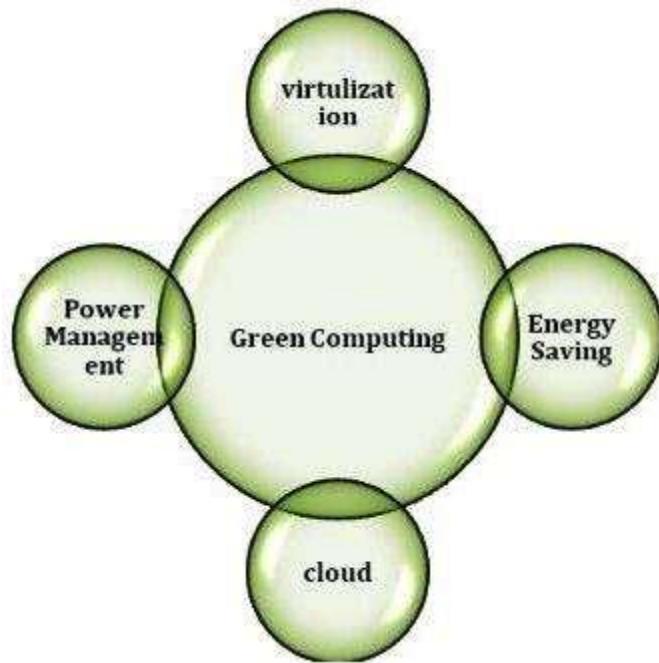
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1) What's Green Computing?

Ans- Green computing, green IT, or ICT sustainability, is the study and practice of environmentally sustainable computing or IT.

The goals of green computing are similar to green chemistry: reduce the use of hazardous materials, maximize energy efficiency during the product's lifetime, the recyclability or biodegradability of defunct products and factory waste.

Green computing is important for all classes of systems, ranging from handheld systems to large-scale data centres. Many corporate IT departments have green computing initiatives to reduce the environmental effect of their IT operations.



2) Some Example of Green Computing

Ans- Renewable Energy Sources, Renewable energy sources don't use fossil fuel.

They are freely available, friendly to the environment and generate little pollution. Apple, which is building a new corporate center, plans to use wind turbine technology to power much of the building, and Google has already created a wind-powered data center.

Alternative energy sources aren't limited to large corporations or to wind. Solar energy has long been available to homeowners. It is already possible for homeowners to install solar arrays, solar water heaters and wind generators to provide at least some of their energy requirements. Other familiar green technology sources include geothermal and hydroelectric energy.

3) Steps to contribute toward Green Computing.

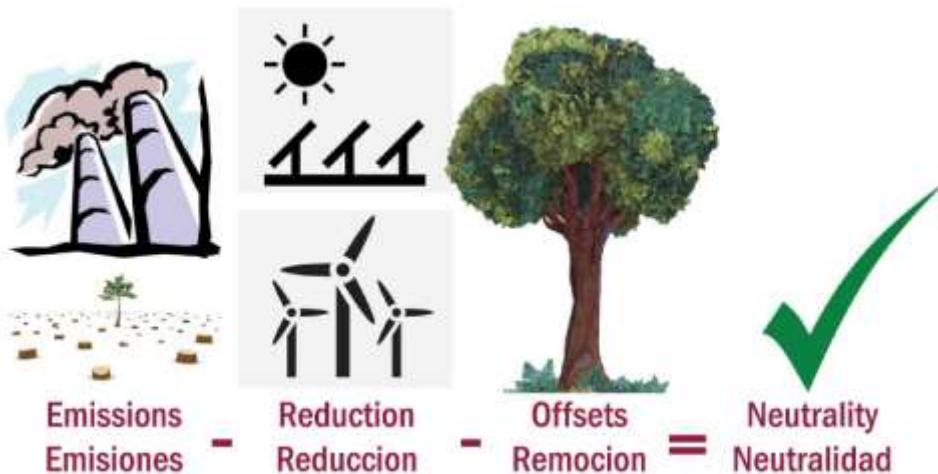
Ans- Many steps are there to contribute toward Green Computing

Proclamation of the Green Intention- It is always best to begin Green IT initiatives by communicating intentions to adopt an environment-friendly IT infrastructure.



1) Planning more centralised IT Operations- It is relatively easy for an organization to centralize its information technology (IT) system. With server virtualization, carbon footprints can be significantly reduced.

2) Usage of more efficient Computer Application- By using more powerful computer applications, your IT systems can better deal with inefficiencies. Besides, faster software spares the servers from regularly operating at maximum capacity, thereby consuming lesser power.



- 3) Usage of more efficient cooling system- To reduce your CRAC (Computer Room Air Conditioning) power consumption for green computing; invest in supplemental cooling systems that are placed in between the rows of servers in data center. Thus, they can minimize the number of times in a day that the bigger CRAC units are required to work on full power. Apply new Data-Centre design technology that minimizes hot-zones.
- 4) Measurement of current carbon footprints produced by IT components-Where the company stands in terms of carbon footprint brought about by information technology services is important information to be known. Quickly establish a carbon footprint reference point.
- 5) Business performance enhancement through green IT Policies- Make sure that the drive for a green IT fits in your overall business operation. Better yet, ensure that environment-friendly IT and the business goals complement each other. By doing so, you will be able to achieve both green policies and bottom line goals.