PRACTICAL 5

Using practical examples, describe green computing. List and explain the steps you take to contribute to green computing.

- What is Green computing?

Green Computing refers to durable computing of the environment. This reduces the use of electricity as well as power and reduces environmental waste when we are using a computer. It Computing has the same goal with green chemistry, which is now the life of the product and makes the product more energy efficient, the abandoned product and factory waste are more easily recycled and to be biodegradable, less Dangerous Use Content.

➢ Goals of Green Computing

There are different **objectives of green computing** are:

- To minimize the implementation of hazardous products.
- More production of energy efficiency.
- To use the recyclability of wasted product and factory wasted products.
- To design proper algorithms for improve the computer's efficiency

➢ Need of Green Computing

- Save huge money
- Save environment
- Decrease the risks in further life
- More consumption of energy
- for recycle of waste product
- Inspiring to worker
- For retaining high ticketing customers

EXAMPLES :

1. photovoltaic solar panels are most miracle example because it easily converts electricity power into electrical energy.

2. Other great type is Wind Turbine system because with the help of this system anyone can generate electricity power.

- Steps you take to contribute to green computing.

1. **Proclamation of the Green Intentions:**
   It is always best to begin Green IT initiatives by communicating intentions to adopt an environment-friendly IT infrastructure. The push for energy efficiency should be cascaded down to every staff, setting the stage for collaboration between various departments. Once they learn about the initiatives, they will know that everyone needs to be involved.

2. **Appointment of a Working Group for Green IT Compliance Assurance:**
   Once the ball is set to roll, you need to have a committee that will monitor and ensure that the company's plans are adhered to by all members of the organization. One of the most important tasks that the appointed Green IT Committee must focus on is the acquisition of energy efficient IT infrastructure. This team should make sure that the IT groundwork meets all the criteria that are set for the protection of the environment.

3. **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 an important information to be known. Quickly establish a carbon footprint reference point. Check on the power usage in the IT center and compare it with existing power efficiency standards and metrics for industry.

4. **Planning More Centralized 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.

5. **Usage of More Efficient Computer Applications:**
   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. If one can only increase the speed of the computer applications that is used, one can have a corresponding positive effect on the energy use and carbon emissions.

6. **Usage of More Efficient Cooling Systems:**
   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.

7. **Careful Weightage of Life-cycle of IT Devices and Accessories:**
   Consider the projected life-cycle of existing IT hardware. Can it be recycled? Will it decay in time? If not, then disposing of existing hardware can far outweigh the environmental benefits that you intend to achieve by buying newer more power-efficient computer hardware.

8. **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.

9. **Work with Everyone Involved in IT Process Life-cycle:**
   Now that you have taken the steps to ensure that company uses green IT, you need to get everyone involved in the initiative. The human resources department can support initiatives by regularly posting announcements and notices that touch on the subject of environment-friendly computing.

10. **Result Monitoring and Continuous IT Optimization:**
    Lastly, you should always check the results of green IT initiatives. Compare this data with the benchmarks and metrics that is set for the company. A good example is checking total power consumption for each month. If it has significantly dropped, then one can say that we have effectively reduced your organization's carbon footprint.