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Roll No:- 27 Class:- FYCS

Subject:- IT TOOLS

Practical 5:- Using Practical Example, describe green computing. List and explain the steps that you take to contribute to green computing.

What is Green Computing?

Green computing is the environmentally responsible and eco-friendly use of computers and their resources. In broader terms, it is also defined as the study of designing, engineering, manufacturing, using and disposing of computing devices in a way that reduces their environmental impact.

Many IT manufacturers and vendors are continuously investing in designing energy-efficient computing devices, reducing the use of dangerous materials and encouraging the recyclability of digital devices. Green computing practices came into prominence in 1992, when the Environmental Protection Agency (EPA) launched the Energy Star program.

Green computing is also known as green information technology (green IT).

What Technology Services is Doing to Go Green?

Technology Services (TS) supports sustainability in several ways. Examples include:

- **Purchasing from Environmentally Committed Companies:-**
  Responsible handling of electronic equipment is critical in order to minimize the university's impact on the environment. TS purchases campus computers from Dell and Apple. Both companies are known for adhering to sustainable, environmentally responsible practices and standards which apply for the life of their computers, from design, production, and packaging to recycling after the machine's useful life has ended.

- **Participating in Electronic Recycling Programs:-**
  All electronic waste on the Puget Sound campus is recycled in one of the following ways:
  1. Outdated Apple equipment is processed through Apple's Trade-In Program, often for purchase credit. Apple either refurbishes the equipment or recycles it in an environmentally safe manner.
  2. Other outdated equipment is processed through the university's recycling partner, Green PC Electronic Recycling. Such equipment is then refurbished and resold to other users.

  Green PC Electronic Recycling is a certified member of the State of Washington's E-Cycle Washington Program, which has strict requirements regarding disposal of electronic waste as outlined in state code. The state also maintains a list of approved e-waste collectors.

- **Deploying Virtual Technologies:-**
  By employing virtualization technology for servers and desktops, Technology Services promotes sustainability while also improving services! Just one virtual server can host services that once required multiple machines, thus reducing the power needed to run and cool the university's physical servers.
- **Limiting Printing and Recycling Paper:-**
  Through PrintGreen, instituted in Fall 2012, students were allotted 750 free prints each semester - an amount that the majority of students did not exceed based on past usage records. Now, as of Fall 2017, students are allotted 2250 print credits for the entire academic year including summer semester. After 2250 prints, a student pays 10 cents per print. The ultimate goal of PrintGreen is to provide students with better information on the environmental impact of their printing and to promote the sustainable use of campus resources.

The steps that we take to contribute to green computing are:-

1. **Look for the ENERGY STAR:-**

Consider energy efficiency when shopping for new equipment by looking for products with an ENERGY STAR.

2. **Turn Off Your Monitor:-**

Your monitor uses a lot of power, so put it in standby or turn it off when not in use.

3. **Adjust the Brightness:-**

The brightest setting on a monitor consumes twice the power used by the dimmest setting.

4. **Don't Use a Screen Saver**

Screen savers consume power and are unnecessary. Instead set your monitor to go blank or dim when not in use.

5. **Turn Off Peripherals:-**

When you don't need your speakers, scanner, and other add-ons, turn them off.

6. **Leave Your Printer Off:-**

A printer draws a lot of power, so leave it off until you need it. Also make sure its power settings include a standby mode that consumes less energy when on.

7. **Preview Before You Print:-**

Select and print only the content you need. Omit unneeded pages from the printing job.

8. Print on Both Sides:-

Another way to reduce the amount of paper you use is to print multiple pages on a single sheet.

9. Don't Print:-

Ask yourself if printing is necessary. Do you really need a hard copy or can you just read the e-mail, document, or Web page on screen?

10.Purchase energy-saving hardware:-

Purchasing energy-saving power supply units can save money, help the environment and they are often quieter.

11.Power down computers while not using:-

Many of us leave our computers running even when we are not using them, this leads to waste of energy. if you do not want o switch them off completely use sleep mode or hibernate, this will help save the power and keep it to its current state to use it when needed.

12.Use a laptop instead of a desktop:-

Laptops are environmentally friendly because they have components that do not require a lot of power. Use a laptop as much as you can.

13.Use power-saving features:-

These features in a computer can command the computer to do various energy-saving tasks automatically, therefore saving a lot of power.

14.Recycle responsibly:-

You should check with your authority to see which companies can safely dispose of old computer parts, this because computers have hazardous particles which affect the environment.

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