Assignment

1. Explain Green Computing with its advantages.

Green Computing

Green computing is environmentally responsible and eco-friendly use of computers. It is also defined by being the using and disposing of computing devices in a way that reduces their environmental contact.

Advantages of Green Computing

1. Lessened vitality utilization by green registering advances converts into low carbon dioxide emanations, which emerge because of the absence of petroleum derivatives utilized as a part of intensity plants and transportation.
2. Conservation of resources means less energy is required to produce, use and dispose of products.
3. Saving energy and resources saves money.
4. Green processing includes changing government arrangement to empower reusing by people and organizations and to lessen vitality utilization.
5. Reduce existing exposure in laptops such as chemical, cancer, nerve damage, and is known due to immune responses in humans.

2. What is E-waste? What can be done to reduce the impact of E-waste?

E-waste

E-waste, or electronic waste, encompasses electrical and electronic equipment that's outdated, unwanted, or broken. That means everything from smartphones to end-of-life refrigerators. Basically, anything that runs on electricity that you've decided to get rid of. Globally, we only recycle 10% of our e-waste, a number that's as shocking as it is depressing. As for the 90% we don't recycle, it ends up getting landfilled, incinerated, or illegally traded.

What can be done to reduce the impact of E-waste?

1. **Reduce:** The easiest way to solve the e-waste crisis is to produce less e-waste. Companies are constantly rolling out new products—like Apple, for instance, with its iPhone. Newer products look and function better than their predecessors, but novelty comes at a price. Instead of buying new gadgets, stick to what you've got. Also, by taking care of your electronics you can ensure that they last longer. When you don't have to replace them as often, you end up saving money.

2. **<u>Reuse:</u>** Instead of tossing out an old television set or gaming console, consider regifting, selling, or donating it. You could also hold on to it. It might end up being worth something someday. For instance, the Original Apple 1. It's sold at auction for upwards of $905,000.

3. **<u>Repair:</u>** People often throw out and replace broken electronics instead of getting them repaired, as repairs can be expensive. But it's a cheap fix. Online resources like iFixit, a website that boasts free repair guides for everything, provide reliable information that'll help you get your technology back in working order. Also always remember to be safe.

4. **<u>Recycle:</u>** As a last resort, you can always recycle your e-waste—but make sure you're doing it correctly! Many communities have e-waste recycling events and drop-off depots that handle these materials. Organizations like TerraCycle accept e-waste in the U.S. and Canada. So do some manufactures and retailers, like Apple and Best Buy.

3. What are the benefits of going paperless?

<u>Benefits of going paperless</u>

1. <u>Document organization</u>
The ability to quickly locate and disseminate information may enhance a company's efficiency and professional image. Spending time searching through piles of paper slows down response time in an age when most answers are only a few keystrokes away. By scanning electronic copies of receipts and invoices, documents can be sorted, filed, and organized for quick retrieval when it matters most.

2. <u>Client communication is faster and less expensive</u>
By maintaining a customer email list, you can instantaneously communicate sales and special offers without incurring postage and printing expenses. With the advanced technology of smart devices, most people have immediate access to emails. While it increases efficiency, electronic communication also decreases storage costs as the amount of paper copies littering an office will begin to dwindle.

3. <u>Paperless files are easily saved and retrieved on the go</u>
With the advent of photo-scanning apps, business travelers can easily back up expense reports without needing to save a pile of papers to bring back to the office. Electronic files can also be shared with coworkers over a network or via email. Shifting to paperless documentation also makes the transportation of data more efficient, without the need for cumbersome fax machines or document couriers.

4. **<u>Automatic backups</u>**

   When you accidentally throw out an important paper, it's usually gone forever. However, maintaining electronic files allows for multiple backup points. Data can be saved on flash drives, in the cloud, or to an external hard drive. For vitally important financial data, cloud-based accounting systems provide automatic backups on a pre-scheduled basis, which eliminates the need for small business owners to set aside time for manual backups.

5. **<u>Data security</u>**

   Customers will always be concerned about privacy and data protection, which requires companies to respond by implementing proper data security procedures beyond locked filing cabinets and paper shredders. Many of today's cloud-based accounting systems offer bank-level data security to protect financial and customer information, which is more than most small companies with limited technology staff can afford to build in-house.

6. **<u>Environmental friendliness</u>**

   According to the Environmental Paper Network's most recent State of the Paper Industry report, paper usage in North America is decreasing while the amount of paper recovered for recycling is increasing. Companies are striving to recycle, yet office copy paper alone still accounts for over 20 percent of the total paper usage in the United States. But being green is more than just reducing paper production. A paperless environment may also mean less energy consumption. Small businesses use less energy when printers, faxes, and copiers are inactive.

7. **<u>Financial benefits</u>**

   The savings of going paperless extends beyond just the cost of the paper, which can be substantial. The cost of other office supplies like ink cartridges also decreases. Additional upgrades or replacements to expensive office equipment such as copiers and fax machines may also decrease in a paperless office.

   The shift toward a paperless environment increases each year as new technology becomes available to improve data storage and electronic communication. Taking action to reduce paper usage may help businesses be more efficient and enhance the level of security that guards their most valuable information.

4. What is Github? Give advantages of using Github.

Github

GitHub is a website and cloud-based service that helps developers store and manage their code, as well as track and control changes to their code.

Advantages of using Github

1. ### It makes it easy to contribute to your open source projects

   Nearly every open-source project uses GitHub to manage their project. Using GitHub is free if your project is open source and includes a wiki and issue tracker that makes it easy to include more in-depth documentation and get feedback about your project. If you want to contribute, you just fork a project, make your changes and then send them a pull request using GitHub web interface.

2. ### Documentation

   By using GitHub, you make it easier to get excellent documentation. Their help section and guides have articles for nearly any topic related to git that you can think of.

3. ### Showcase your work

   GitHub is the best tool you can rely on for attracting recruiters. Today, when searching for new recruits for their project, most companies look into the GitHub profiles. If your profile is available, you will have a higher chance of being recruited even if you are not from a great university or college.

4. ### Markdown

   Markdown allows you to use a simple text editor to write formatted documents. GitHub has revolutionized writing by channeling everything through Markdown: from the issue tracker, user comments,etc. With many other programming languages to learn for setting up projects, it's really a big benefit to have your content inputted in a format without having to learn another system.

5. ### GitHub is a repository

   GitHub is a repository. What this means is that it allows your work to get out in front of the public. Moreover, GitHub is one of the largest coding communities around right now, so it's wide exposure for your project.

6. ### Track changes in your code across versions

   When multiple people collaborate on a project, it's hard to keep track of revisions—who changed what, when, and where those files are stored. GitHub takes care of this problem

by keeping track of all the changes that have been pushed to the repository. Much like using Microsoft Word or Google Drive, you can have a version history of your code so that previous versions are not lost with every iteration.

7. <u>Integration options</u>

GitHub can integrate with common platforms such as Amazon and Google Cloud, services such as Code Climate to track your feedback, and can highlight syntax in over 200 different programming languages.

5. Write a program using PEP8 rules.

```python
1   #Program to calculate area & perimeter of a rectangle.
2   class Rectangle:
3       def calculate_area(self):
4           print("Enter length: ")
5           self.length = float(input())
6           print("Enter breadth: ")
7           self.breadth = float(input())
8           area = self.length*self.breadth
9
10          print("Area of rectangle= %f" %(area))
11
12      def calculate_perimeter(self):
13          perimeter = 2 * (self.length+self.breadth)
14
15          print("Perimeter of rectangle= %f" %(perimeter))
16
17
18  c = Rectangle()
19  x = c.calculate_area()
20  y = c.calculate_perimeter()
```