Name: Bhavana Prajapati **Class: FYIT** **Roll No: 66**

Assignment No: 1

1. Explain Green Computing with its advantages.

Answer: 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. Green computing is a sustainable approach in the design, manufacture, use, and disposal of IT resources (monitors, printers, storage systems, networking equipment, etc.) in an efficient manner so that it has minimal impact on the environment. Hence, we can say that by adopting green computing practices we can achieve a healthier environment without compromising our current and future technological requirements.

Advantages of Green Computing

1. Sustainable computing means reduced energy consumption that leads to reduced GHG emissions and fossil fuel usage.

2. Green computing is cost-effective due to less energy usage & cooling requirements.

3. Sustainable IT helps in the preservation and effective utilization of natural resources.

4. It encourages reuse and recyclability that will result in a lesser number of electronic wastes.

5. Green IT uses non-toxic components which do not pose any health hazard to the end-users.

6. It causes a considerable reduction in the quantity of heat produced from computing devices.

7. Sustainable computing inspires people to reduce, reuse, and recycle.

8. Green IT implementation helps in improving the public image of an individual or an organization.

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

Answer: E-waste, or electronic waste, encompasses electrical and electronic equipment that's outdated, unwanted, or broken.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.

Commonly called the "three R's" of waste management, this waste hierarchy is the guidance suggested for creating a sustainable life. They are not that hard to implement. All you need is to bring a small change in your daily lifestyle to reduce waste

Assignment No: 1

Reduce the impact of E-Waste:

Reduce: The easiest way to solve the e-waste crisis is to produce less e-waste. I know, easier said than done. 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. 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.

Reuse: Instead of tossing out that old television set or gaming console, consider regifting, selling, or donating it. You could also hold on to it. Who knows, it might end up being worth something someday. Look at the Original Apple 1. It's sold at auction for upwards of $905,000.

Repair: People often throw out and replace broken electronics instead of getting them repaired. True, repairs can be expensive, but for those who aren't afraid of a DIY project, 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 tech back in working order. Always remember to be safe, though.

Recycle: As a last resort, you can always recycle your e-waste—just 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 manufacturers and retailers, like Apple and Best Buy.

3. What are the benefits of going paperless.

Answer: Going paperless can make documentation and information sharing easier, keep personal information more secure and help the environment.

1.Document organization:

The ability to quickly locate and disseminate information may enhance your company's efficiency and professional image. Spending time hunting 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. Client communication is faster and less expensive:

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 your office will begin to dwindle.

3.Paperless files are easily saved and retrieved on the go:

With the advent of photo-scanning apps, business travellers 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 co-workers 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. Automatic backups:

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. Data security

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. Environmental friendliness

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. Limit physical contact.

Being free of paper means less interaction among co-workers, clients and customers. A paperless business could be a safer business during a health crisis.

8. Financial benefits

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 your business be more efficient and enhance the level of security that guards your most valuable information.

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

Answer: GitHub is a repository hosting service for Git which is an open-source version control system that helps to manage and store the revisions of various projects so that they can be used at a later date for a new project. While Git is mostly used for the purpose of coding, it can also be used for managing all types of files like Word documents. It lets you and others work together on projects from anywhere. GitHub essentials like repositories, branches, commits, and Pull Requests. GitHub is the web platform for hosting our code using Git's system.

Advantages of Using GitHub:

- Version Control: Version Control refers to a system that records changes to a file or set of files over time, called the 'versions'. In other words, these versions help you in tracking the changes in your codes/project and if necessary, undo those changes as well.
- 2. Good distributed model as each developer gets a local repository with a full history of commits which makes git fast compared to other VCs.
- Branching capabilities and merging are easy (as they are cheap), good data integrity.
- They are free and open-source we can easily download the source code and performs changes to it. They can handle larger projects efficiently.
- The push/pull operations are faster with a simple They save time and developers can fetch and create pull requests without switching.

- Data redundancy and replications. Add ones can be written in many languages.
- They have good and faster network performance and superior disk utilization and they think about its data like a sequence of snapshots.
- The object model is very simple and minimizes push/pull data transfers.

5. Write a program using PEP8 rules.

Answer:

```
# Names of class and methods are self-explantory as per the naming convention

class Rectangle:
    def Take_input(self):
        print("Enter the Length:")
        self.l=float(input())
        print("Enter the breadth:")
        self.b=float(input())

    def CalculateArea(self):
        area=self.l*self.b
        print("Area of rectangle is =%f" %(area))

    def CalculatePerimeter(self):
        perimeter=2*(self.l*self.b)
        print("Perimeter of rectangle is =%f" %(perimeter))

c= Rectangle()
c.Take_input()
c.CalculateArea()
c.CalculatePerimeter()
```

```
Enter the Length:
5
Enter the breadth:
7
Area of rectangle is =35.000000
Perimeter of rectangle is =70.000000
```

Assignment No: 1

2.

Used Proper Whitespaces and line breaks so that it can be read easily.

```
data = []

n = int(input('Enter the number of elements: '))

for i in range (0, n):

    element = int(input('Enter the element: '))

    data.append(element)

print('The data set is: ', data)
```

```
Enter the number of elements: 7
Enter the element: 21
Enter the element: 66
Enter the element: 67
Enter the element: 110
Enter the element: 20
Enter the element: 65
Enter the element: 80
The data set is:  [21, 66, 67, 110, 20, 65, 80]
```

3.

Imported the module into a Python script using keyword *import*.

```
import fractions
print(fractions.Fraction('1.5'))
print(fractions.Fraction(5))
print(fractions.Fraction(4,30))
```

```
3/2
5
2/15
```

Assignment No: 1

4.

Using the comments while developing a code/script can give the information about the functionality and documentation to other user who is reading the code.

```
# Python program to find simple interest

p = float(input("Enter the principle amount : "))
r = float(input("Enter the rate of interest : "))
t = float(input("Enter the time in the years: "))

si = (p*r*t)/100                    # calculating simple interest

print("Principle amount: ", p)
print("Interest rate   : ", r)
print("Time in years   : ", t)
print("Simple Interest : ", si)
```

```
Enter the principle amount : 25000
Enter the rate of interest : 3
Enter the time in the years: 12
Principle amount:  25000.0
Interest rate   :  3.0
Time in years   :  12.0
Simple Interest :  9000.0
```

5.

Make the Proper alignment of statements

```
students = [
 ("Bhavana", ["CompSci", "Physics"]),
 ("Vanshu", ["Maths", "CompSci", "Stats"]),
 ("Jess", ["CompSci", "Accounting", "Economics", "Management"]),
 ("Sarah", ["InfSys", "Accounting", "Economics", "CommLaw"]),
 ("Zuki", ["Sociology", "Economics", "Law", "Stats", "Music"])]
```

```
# Print all students with a count of their courses.
for name, subjects in students:
 print(name, "takes", len(subjects), "courses")
```

```
Bhavana takes 2 courses
Vanshu takes 3 courses
Jess takes 4 courses
Sarah takes 4 courses
Zuki takes 5 courses
```