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Roll no : 42

Class : FY BSC IT

1. Explain Green Computing with its advantages.

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.

Advantages of Green Computing:

Here different benefits of green computing are

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.

Conservation of resources means less energy is required to produce, use and dispose of products.

Saving energy and resources saves money.

Green processing includes changing government arrangement to empower reusing by people and organizations and to lessen vitality utilization.

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.

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E-waste, or electronic waste, encompasses electrical and electronic equipment that's outdated, unwanted, or broken.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

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. Instead of buying that flashy new gadget, 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.

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. If your city is currently a member of our network, download the Recycle Coach app to find out how. Organizations like TerraCycle accept e-waste in the U.S. and Canada. So do some manufacturers and retailers, like Apple and Best Buy.



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3. What are the benefits of going paperless.

A paperless approach offers a much higher level of **security** for your and your customers' sensitive data. Numerous safeguards, encryption, and banking-level **security** measure work together to protect your documents. In a paper-based office, everyone has access to all the information.

Going paperless helps to reduce CO₂ (carbon dioxide) emissions. Turning a single tree into 17 reams of paper results in around 110 lbs of CO₂ being released into the **atmosphere**. Additionally, trees are also 'carbon sinks' and every tree that is not cut down for paper usage is able to absorb CO₂ gasses.

Benefits of Going Paperless

- Saves Time. Time spent filing, organizing, and searching for paper documents is time that could be spent on more productive tasks. ...
- Saves Space. ...
- Saves **Money**. ...
- Eases Transfer of Information. ...
- Promotes the Environment. ...
- Boosts **Security**.

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 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. 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

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. Financial benefits

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

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

GitHub is a code hosting platform for version control and collaboration. It lets you and others work together on projects from anywhere. This tutorial teaches you **GitHub** essentials like repositories, branches, commits, and Pull Requests.

GitHub today announced that all of its core features are now available for **free** to all users, including those that are currently on **free** accounts.



Advantages

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

To be honest, 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

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section and guides have articles for nearly any topic related to git that you can think of.

3. Showcase your work

Are you a developer and wishes to attract recruiters? GitHub is the best tool you can rely on for this. 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, everything. With so 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 yet another system.

5. GitHub is a repository

This was already mentioned before, but it's important to note, GitHub is a repository. What this means that it allows your work to get out there 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 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. Integration options

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.

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PEP 8 exists to improve the readability of Python code. Code is read much more often than it is written.

```
practical 5b oop.py - C:\Users\HP\practical 5b oop.py (3.8.8)
File Edit Format Run Options Window Help

# to demonstrate the use of getter and setter method using property decorator.
class property_decorator_demo:
    def __init__(self):
        self._age = 0

    @property
    def get_age(self):
        print("Getter method called. ")
        return self._age

    @get_age.setter
    def age(self,a):
        if(a < 18):
            raise ValueError("Sorry your age is below eligibility criteria.")
        print("Setter method called.")
        self._age =a

# Creating a object of class.
mark = property_decorator_demo()

#Calling method through object.
mark.age = 19
print(mark.age)
```

Output:

```
IDLE Shell 3.8.8
File Edit Shell Debug Options Window Help

Python 3.8.8 (tags/v3.8.8:024d805, Feb 19 2021, 13:18:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\HP\practical 5b oop.py =====
Setter method called.
Getter method called.
19
>>>
```