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FYIT

ROLL:-145

ASSIGNMENT

Q1) Explain Green Computing with its advantages.

A) 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).

Advantages:-

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.

Q2) What is E-waste? What can be done to reduce the impact of E-waste.

A) E-waste is any electrical or electronic equipment that's been discarded. This includes working and broken items that are thrown in the garbage or donated to a charity reseller like Goodwill. Often, if the item goes unsold in the store, it will be thrown away. E-waste is particularly dangerous due to toxic chemicals that naturally leach from the metals inside when buried.

E-waste can be reduced by following steps:-

1. Buy less.-

Buying things we simply do not need is probably the biggest cause of e-waste. We need to stop (really, STOP) and ask ourselves if we even need a gadget or electronic item before we buy it. We need to activate that voice in our heads that prevents us from buying electronic items we simply don't need.

2. Give away or donate your e-waste:-

If you don't need a thing, donate it so someone else can use it. Donations are great for tax deductions; often the amount will be close to the value of the item if you tried to sell it.

If something you have isn't worth donating, maybe give your stuff away for free on sites like FreeCycle.

3. Sell:-

Sell your electronic items as soon as you don't need them; they lose value rapidly when newer models come on the market. Craigslist is a good option to sell heavy or lower value items, since shipping isn't involved.

4. Take them back to the store:-

A few stores have a buy-back program. Before you purchase a new gadget at a store, ask the store if they'll buy back your old camera, laptop, or any other electronic. Best Buy has a trade-in option, where you can get rid of your old equipment in exchange for Best Buy gift cards.

5. Educate yourself, and be a little afraid.

Most electronic gadgets have toxic materials in them, so it is extremely important to dispose of them the right way. Educate yourself, your kids, and your friends. These toxins should push us to be more mindful of e-waste.

Q3) What are the benefits of going paperless?

A) Although the total elimination of paper may not be feasible for every business, even a small reduction may yield cost savings and increased efficiency. It doesn't matter if your company is in the startup phase or has developed well-established policies and procedures, there are always advantages to reducing paper usage.

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. 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.

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

A) GitHub is one of the world's largest community of developers. It's an intricate platform that fosters collaboration and communication between developers. GitHub has a number of useful features that enable development teams to work together on the same project and easily create new versions of software without disrupting the current versions, but it doesn't stop there.

Once new additions to a program are complete, for example, they can easily be incorporated into existing programs. GitHub also makes it extremely simple to work together on strings of code to really dial in and perfect even the smallest parts of a program. With GitHub, you can collaborate and work on projects with others anywhere in the world.

Advantages of using github:-

1. It makes it easy to contribute to your open source project:-

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. 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.

4. GitHub is a repository

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.

5. 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.

Q5) Write a program using PEP8 rules.

A)

```
# change the value for a different result
num = 7

# uncomment to take input from the user
#num = int(input("Enter a number: "))

factorial = 1

# check if the number is negative, positive or zero
if num < 0:
    print("Sorry, factorial does not exist for negative numbers")
elif num == 0:
    print("The factorial of 0 is 1")
else:
    for i in range(1,num + 1):
        factorial = factorial*i

print("The factorial of",num,"is",factorial)
```

Output:

The factorial of 7 is 5040

