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CLASS :- FYIT

ROLL NO :- 132

SUBJECT :- IT PLATFORMS, TOOLS AND PRACTICES

1. Explain Green Computing with its advantages.

i) Green computing, also called green technology, is the environmentally responsible use of computers and related resources. Such practices include the implementation of energy-efficient central processing units (CPUs), servers and peripherals as well as reduced resource consumption and proper disposal of electronic waste (e-waste).

ii) Advantages of green computing are:-

a) Green computing technique reduces the energy consumption which results into low carbon dioxide emission.

b) By using green computing techniques we can also save money that was spent in extra usage of energy and resources.

c) Green computing also applies changing government policy to encourage recycling.

d) Green computing also removes the risk which is existing in the laptop such as chemical known to cause cancer or nerve damage etc.

e) Use preserve resources which use less energy to produce use and dispose of product.

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

i) Electronic waste or e-waste describes discarded electrical or electronic devices. Used electronics which are destined for refurbishment, reuse, resale, salvage recycling through material recovery, or disposal are also considered e-waste.

ii) 6 ways to reduce the impact the of E-waste

- **Re-evaluate.** Do you really need that extra gadget? Try finding one device with multiple functions.
- **Extend the life of your electronics.** Buy a case, keep your device clean, and avoid overcharging the battery.
- **Buy environmentally friendly electronics.** Look for products labeled Energy Star or certified by the Electronic Product Environmental Assessment Tool (EPEAT).
- **Donate used electronics to social programs**—and help victims of domestic violence, children safety initiatives, environmental causes, and more. Ask your student REP for a postage paid mailer for your cell phone or ink cartridge. For each item received, the World Wildlife Fund will receive one dollar.
- **Reuse large electronics.**
- **Recycle electronics and batteries in e-waste recycling bins located around campus.** Large electronics can go in the larger bins found in your building.

3. What are the benefits of going paperless.

7 Benefits of going paperless are as follows:-

I. Increase employee productivity

Employee performance has a direct impact on business success. In a paperless office, employees can easily find the files they need, collaborate with other employees, communicate with their clients, and avoid making mistakes. Features like splitting, merging, and getting documents signed are available on most modern document management systems.

II. Protect customer privacy

Paperless documents are often encrypted and secured with an access control system so that only employees and customers can securely access the appropriate documents.

III. Reduce human error

Paperless documents spare you from manually printing, labeling, storing, filing, and retrieving documents. Automation allows quick document processing, reduces stress levels, and lets you focus on your customers.

IV. Collaborate

Document management solutions for paperless offices include digital collaboration tools that make it easier to share and circulate information. Customers and employees communicate their status and give feedback about each file so that long back-and-forth email conversations are no longer necessary.

V. Consume less physical space

With paper documents, you need more storage space as your business grows. Digital technology shrinks all that storage into the palm of your hand, lets you access the documents from anywhere, and helps you stay connected.

VI. Minimize risks

Minimizing the risk of losing critical files and information is important. Cloud storage systems follow disaster recovery practices, meaning that your documents are backed up and secured from unexpected events such as fires, floods, or other disasters.

VII. Save money

Going paperless doesn't just mean reducing office supply costs. You're losing money on every second spent on back and forth emails, on the hours spent searching for documents, and on time wasted with miscommunication. Adopting an all-in-one document management system for your business documents and customer communications helps you eliminate those costs and focus on what matters most to your business.

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

i) GitHub is a code hosting platform for version control and collaboration. It lets you and others work together on projects from anywhere.

ii) This tutorial teaches you GitHub essentials like repositories, branches, commits, and Pull Requests. You'll create your own Hello World repository and learn GitHub's Pull Request workflow, a popular way to create and review code.

iii) The advantages of using Github are:-

- It is easy to contribute to open source projects via GitHub.
- It helps to create an excellent document.
- You can attract the recruiter by showing off your work. If you have a profile on GitHub, you will have a higher chance of being recruited.
- It allows your work to get out there in front of the public.
- You can track changes in your code across versions.

5. Write a program using PEP8 rules.

1. Indentation

In python, indentation is very necessary while coding. If we don't take care of it, this will lead to syntax error. Generally, we use 4 spaces are used as indentation. This 4-space is not always necessary and can be overruled for next line or continuation line.

Python Code:

```
def function_name(variable_one, variable_two):    print(variable_one)
```

2. Docstrings

Docstrings are the comments which are non-executable lines in the code used to understand the code. There are single and multi-line docstrings in Python. Single line comment can be used by hash, and multi-line comments can be used by triple quotes.

Python Code:

```
# This is a single line comment"""This is multiple line comment"""
```

3. Line Length

Maximum line length in a code is 79 characters in Python. due to this, we can able to open files side by side to compare. We can view the entire expression without scrolling horizontally. The lines are wrapped by using parenthesis, brackets and braces.

Python Code:

```
with open('/path/from/where/file/want/to/read', 'r') as file_1, \
open('/path/to/where/the/file/want/to/be/written', 'w') as file_2:    file_2.write(file_1.read())
```

4. Blank Lines

In python, blank lines are used to separate top-level function and classes. We should use one blank line, so that method definitions inside classes are separated.

5. Regular and updated Comments

There are various types and conditions in the comments. Comments must form complete and meaningful sentences. First word should be an upper case in case of a comment, or else it would be an identifier. Period at the end can be ignored for short comments.

In block comments, more than one paragraphs are present which are ended by periods. Block comments and regular comments can be written by beginning with a single hash “#”.

Python Code:

```
name='Python'    # Inline Comment# Single line Comment"""Multiple   line   Comment"""
```

6. Trailing Commas

Trailing commas are not necessary unless while creating a tuple.

Python Code:

```
Tuple= ("Python", "Java", "C")
```

7. UTF-8 or ASCII encodings

Use Python's default UTF-8 or ASCII encodings are not any fancy encodings, these are specially meant for international environment.

8. Spaces

Spaces are used around operators and after the commas. It cannot be used directly inside bracketing constructs.

Python Code:

```
z = x(a, b) + y(c, d)
```