**ANSWERS:**

1. **Python is a high-level programming language known for its simplicity and readability. It is widely used across various domains including web development, data analysis, artificial intelligence, scientific computing, and more; some key features include, Readability, Simplicity, Versatility, Large standard library, Interpreted and Interactive, Community and support, Open-source and Free etc. Python is used in many cases like Web Development, Data Science and Machine Learning, Scripting and Automation, Desktop GUI Applications, Game Development, Data Visualization and Natural Language Processing.**
2. [**https://docs.google.com/document/d/1uWTMnbxVAfIkC8tX66MfvHNssMfIRFSp4kgf4zjhM2E/edit?usp=sharing**](https://docs.google.com/document/d/1uWTMnbxVAfIkC8tX66MfvHNssMfIRFSp4kgf4zjhM2E/edit?usp=sharing)

**4.https://docs.google.com/document/d/1nflwfNQAqFQOrCjftdKXUUDrpvYWCA6EO6yRLX2hxuQ/edit?usp=sharing; .**[**https://docs.google.com/document/d/1mzpBsWyYhbxHTgfpMcFyw5JppHDGFt4i2Od\_zi3K7ds/edit?usp=sharing**](https://docs.google.com/document/d/1mzpBsWyYhbxHTgfpMcFyw5JppHDGFt4i2Od_zi3K7ds/edit?usp=sharing)

**5.https://docs.google.com/document/d/1NDntUpjMc\_lTndxnuHM3cO\_LfkO1-7z3-b8B-X-esNo/edit?usp=sharing**

**6.In Python, a function is a reusable block of code that performs a specific task. It can take inputs (arguments), execute a series of statements, and return an output; Modularity: Breaks code into manageable, reusable sections, Reusability: Allows repeated use without rewriting code, Clarity: Improves readability and organization and Maintainability: Easier to update and debug.**[**https://docs.google.com/document/d/1tOvg996d9eAq-7X-CO3CfAFELolKhQOgfdJ7l3D5Wj8/edit?usp=sharing**](https://docs.google.com/document/d/1tOvg996d9eAq-7X-CO3CfAFELolKhQOgfdJ7l3D5Wj8/edit?usp=sharing)**; .https://docs.google.com/document/d/12ZMv9uLTKxAQWTg2SiX7F7GQ2VzY-sZTTMcBj3iRjgc/edit?usp=sharing;**

**7.https://docs.google.com/document/d/1TdTWp0u3N\_lrFSJPfFWNKudAfZZmmNbYunof7oGwkHg/edit?usp=sharing**

**8.Exception handling in Python is a mechanism to gracefully handle errors and exceptional situations that occur during the execution of a program. It allows the program to continue running or terminate in a controlled manner, rather than crashing unexpectedly. https://docs.google.com/document/d/1HchfE6f47x56DIE3\_3oqjT5WSMhFUop\_Zv2ylvqnMUg/edit?usp=sharing**

**9. A module is a single file (with a .py extension) that contains Python code. This code can include definitions of functions, classes, variables, and runnable code. Modules are designed to encapsulate code, making it reusable across different programs and easier to manage while A package is a collection of modules organized in directories that provides a hierarchical structure. Each package is a directory that contains a special \_\_init\_\_.py file (which can be empty) to indicate that the directory is a package. This structure allows the organization of modules into a namespace hierarchy. https://docs.google.com/document/d/1sxN6Q1c9ASsxjHAszXFyWT4gCpl04-q9SWL\_GHLeb14/edit?usp=sharing**

**10.https://docs.google.com/document/d/1AlAQk2yxq7Crw3z6aeI8kHi5N7olcswIAsILRDMgkPw/edit?usp=sharing**

**Reference i used includes; Youtube, Google and AI**