MCQs

1) Which of the following Integrated Development Environments (IDEs) is specifically mentioned as being developed for Python and data science?

a) Visual Studio Code

b) Spyder

c) Eclipse+PyDev

d) Atom

Answer: (b) Spyder

2) Which of the following is a valid variable name in Python?

a) 2name

b) name_1

c) @name

d) _name!

Answer: (b) name_1

5-7 marks questions

1)What are the key advantages of using Python for data science as listed in the presentation?

Answer: The presentation highlights several features that make Python well-suited for data science:

1. **Open Source:** Python is developed under an Open Source Initiative license, making it **free to use and distribute**, even for commercial purposes.
2. **Simple Syntax:** Its syntax is **simple to understand and code**, making it more accessible and easier to learn.
3. **Specialized Libraries:** Python has a rich ecosystem of **libraries designed specifically for data science tasks**, which simplifies complex processes.
4. **Cloud Integration:** It **combines well with a majority of cloud platform service providers**, which is crucial for modern data science workflows.
5. **Cross-Platform:** Python is a **cross-platform** language, meaning it can run on different operating systems like Windows, Linux, and Mac without modification.
6. **Strong Community Support:** It is **highly supported by a large community group**, ensuring continuous development, extensive documentation, and help for users

2) What are the different basic data types in Python?

Answer:

Python supports several basic data types:

1. Boolean (bool) – represents logical values: True, False.
2. Integer (int) – positive and negative whole numbers.
3. Float (float) – real numbers with decimal points.
4. Complex (complex) – numbers with real and imaginary parts.
5. String (str) – sequence of characters enclosed in quotes.