

# INDIRA UNIVERSITY, PUNE

## SCHOOL OF BUSINESS- MBA

*Term End Examination (2025 Pattern) April- May – 2026- Semester – II*

**Course Name: Fundamentals of Programming for Analytics**  
**Course Code: 25MBA2102**

**Max. Marks: 25**  
**Time: 1:30 Hrs.**

### Instructions

- All questions are compulsory.
- Draw diagrams or flowcharts wherever necessary.
- Write a code wherever necessary with expected output.

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| <b>Q1.</b> | <b>Solve any one from the following. (5 Marks)</b><br>1. A developer must choose between lists and tuples for performance. Compare them using a real-world example.<br><br>2. Explain how Python data structures are used in real-life applications like e-commerce or banking systems.                      | CO2 |
| <b>Q2.</b> | <b>Solve any one from the following. (5 Marks)</b><br>1. A software project needs reusable code. Create a module and import it into another program.<br><br>2. A banking system must handle invalid inputs. Demonstrate exception handling using try-except.                                                 | CO3 |
| <b>Q3</b>  | <b>Solve any one from the following. (5 Marks)</b><br>1. A company wants to visualize monthly sales trends. Explain how Matplotlib charts can help.<br><br>2. A business analyst must choose between bar chart, line chart, and pie chart. Compare these techniques.                                         | CO4 |
| <b>Q.4</b> | <b>Solve any two from the following. (10 Marks)</b><br>1. A team must choose between NumPy and pandas. Compare their functionalities.<br><br>2. A company collects data using web scraping. Analyze its advantages and risks.<br><br>3. A system stores data in files vs databases. Compare both approaches. | CO5 |

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