Which of the following regular expressions will match a string
that contains exactly three consecutive digits, preceded by one or
more lowercase letters, and followed by zero or more uppercase letters?

A) r"[a-z]+\d{3}[A-Z]*"

B) r"[a-z]*\d{3}[A-Z]+"

C) r"[a-z]+\d+[A-Z]*"

D) r"\w+\d{3}\w*"

Which of the following regular expressions would best match a valid email address format?

A) r"[a-zA-Z0-9]+@[a-zA-Z0-9]+\.[a-zA-Z]{2,}"

B) r"\w+@\w+\.\w+"

C) r"[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}"

D) r".*@.*\..*"

Answer C

Which of the following regular expressions will match a string that contains exactly one digit, followed by three lowercase letters, followed by any two non-whitespace characters?

A) r"\d[a-z]{3}\S{2}"

B) r"\w\D{3}\S\S"

C) r"\d[a-z]{3}.."

D) r"\d\w{3}\S\S"

Answer A

Why are regular expressions (regex) particularly useful in Exploratory Data Analysis (EDA) when working with text data?

A) They allow for complex mathematical calculations on numerical data

B) They enable the creation of interactive visualizations

C) They facilitate pattern matching and extraction of specific information from unstructured text

D) They automatically clean and preprocess all types of data

E) They are used to train machine learning models on text data