Q1. In Python 3.X, what are the names and functions of string object types?

Ans: Method True if

Str.isalnum() String consists of only alphanumeric characters (no symbols)

str.isalpha() String consists of only alphabetic characters (no symbols)

str.islower() String's alphabetic characters are all lower case

str.isnumeric() String consists of only numeric characters

Q2. How do the string forms in Python 3.X vary in terms of operations?

Ans: splitlines() Split the lines at line boundaries

startswith() Returns “True” if a string starts with the given prefix

strip() Returns the string with both leading and trailing characters

swapcase() Converts all uppercase characters to lowercase and vice versa

Q3. In 3.X, how do you put non-ASCII Unicode characters in a string?

Ans: \x, \u or \U escapes.

Q4. In Python 3.X, what are the key differences between text-mode and binary-mode files?

Ans: In text mode, Python automatically handles the encoding and decoding of the data, depending on the platform's default encoding scheme. Binary files, on the other hand, are files that contain non-text data, such as images, audio files, and executable files.

Q5. How can you interpret a Unicode text file containing text encoded in a different encoding than your platform's default?

Ans:

Unicode characters are represented in one of three encoding forms: a 32-bit form (UTF-32), a 16-bit form (UTF-16), and an 8-bit form (UTF-8). These character encoding standards define not only the identity of each character and its numeric value (code position), but also how this value is represented in bits.

Q6. What is the best way to make a Unicode text file in a particular encoding format?

Ans: You should either use normal open() and encode the unicode yourself, or (usually a better idea) use codecs. open() and not encode the data yourself. Thus you have saved unicode e with a obfuscation mark on it to a file.

Q7. What qualifies ASCII text as a form of Unicode text?

Ans: Unicode includes all the characters that can be encoded in ASCII

Q8. How much of an effect does the change in string types in Python 3.X have on your code?

Ans: re-assigning a variable to another string.