**ASSIGNMENT 9**

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

Ans: In Python string object comes with many functions. Some of them are str.upper(), str.lower(), str.capitalize() and some Boolean string methods like str.isalnum(), str.isalpha(), str.islower(). To determine the length of the string we can use len(str) method. Moreover, to convert string to list or vise-versa we can use split or join methods.

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

Ans: By putting u in front of the string literal we can put non-ASCII Unicode characters in a string.

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

Ans: To read or write files in python there are two modes text-mode and binary-mode. Text-mode is present by default and present the text in the files using text, whereas, binary-mode display the text in the files as binary code I.e., in 0 or 1 values

Q5. How can you interpret a Unicode text file containing text encoded in a different encoding than

your platform’s default?

Ans: Let’s suppose we have a text file: my\_file.txt and it is encoded in utf-16 then we can decode this file by:

with open('my\_file2.txt',mode='rb') as f:

contents=f.read()

print(contents.decode("utf-16le"))

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

Ans: The best practice to make a Unicode text file in a particular encoding format is to specify the character encoding that we are working with in ‘with’ statement of the code. For example:

with open("message.txt", mode="wt", encoding="utf-16") as f:  
 f.write("Hey")

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

Ans: All ASCII characters are the form of utf-8 Unicode I.e., first 128 characters of Unicode is ascii. Therefore, we can easily transform ascii to Unicode text.

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

Ans: As in Python3.X string and bytes cannot be used to together, therefore, to work with bytes we have to convert string to bytes by using str.encode() and bytes.decode() for vise-versa.