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

Ans:

len() - Returns the length of the given string.

.index() - Returns the lowest index of substring if substring is found in the string.

.rindex() - Returns the highest index of substring if substring is found in the string.

max() - Returns the highest Alphabetical Character in the string as per ASCII.

min() - Returns the lowest Alphabetical Character in the string as per ASCII.

.splitlines() - Returns a list of lines in the string.

.capitalize() - Returns the string with first character capitalized.

.join() - Concatenates a list or tuple of words with intervening occuernces of sep.

.translate() - translates the characters using table.

.maketrans() - Creating a mapping translation tbale usable for .translate()

.casefold() - Returns the string in lowercase which can be used for caseless comparisions.

.expandtabs(no\_of\_spaces) - Replaces tabs in a string with specified no of spaces default is 8

.find() - Returns lowest index of substring if substring is found in the string else returns -1.

.rfind() - Returns highest index of substring if substring is found in the string else returns -1.

.count() - Returns the no of occurances of the char in the given string.

.split() - Returns list of words seperated by given sep else seperated by whitespace.

.rsplit() - Returns list of words seperated by given sep else seperated by whitespace scanning from end.

.replace(,) - Replace all occurances of char\_1 with char\_2 in string.

.encode() - Encodes string into any encoding supported by python. Default encoding is UTF-8.

.ljust() - Left-justify in a field of given width.

.rjust() - Right-justify in a field of given width.

.center() - Center-justify in a field of given width.

.isdecimal() - Returns True if all characters in a string are decimal.

.isalnum() - Returns True if all characters in the string are AlphaNumeric.

.istitle() - Returns True if first character in a string is in Uppercase.

.partition() - Splits string at first occurance of sub string and returns a tuple of 3 elements.

.rpartition() - Splits string at last occurance of sub string and returns a tuple of 3 elements.

.isidentifier() - Returns True if give string is a valid identifier name.

.zfill() - Zfill adds zeros to the begining of string until the specified length is reached.

.upper() - Returns the string with all characters in uppercase.

.lower() - Returns the string with all characters in lowercase

.lstrip() - Returns a copy of where leading whitespaces are removed.

.rstrip() - Returns a copy of where trailed whitespaces are removed.

.strip() - Returns a copy of where both leading and trailing whitespaces are removed.

.swapcase() - Swaps lowercase characters with uppercase and vice versa.

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

Ans:By default the string format is Unicode in python3.x. In case of python2.x, we need to mention explicitly

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

Ans: unidecode() method will be used.

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

Ans: When file is opened in text modere, the data will be read and decodes the content automatically and returns as string. Writing operation takes a string and encodes it before transforming to the file

Binary mode by adding b to the mode string argument in the open() call, reading its data does not decode it in any way, and it returns the content in raw form and unchanged.

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

Ans: encode() and decode()

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

Ans: str.encode() and file.write() and default encoding format is UTF-18

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

Ans: ASCII has an equivalent in Unicode and it represents lowercase letters, uppercase letters and digits and symbols. Unicode represents letters of languages, symbols etc.,

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

Ans: By default, python 3 stores strings as unicode and can store letters from different languages, symbols and emoji etc.,