Q1. Describe the differences between text and binary files in a single paragraph.

Answer: In a normal text file, we store letters,digits,special characters based on their asci value and are in hum readable format whereas as in binary file, data is also stored here in bits but binary files represent custom data.

Q2. What are some scenarios where using text files will be the better option? When would you like to use binary files instead of text files?

Answer: Text files is mostly used in real world when the content inside that file needs to be human readable format . For binary files, when we are concerned with the file size we use binary files but it contains the same amount of data.

Q3. What are some of the issues with using binary operations to read and write a Python integer directly to disc?

Answer: There is only one disadvantage in here is that once we do bitwise manipulation that text or integer value would be converted to binary and after binary operation , the final value would be stored as a binary value which would be not human readable format.

Q4. Describe a benefit of using the with keyword instead of explicitly opening a file.

Answer: The main benefit of using a with keyword is that instead of opening a file in a fixed mode while opening explicitly, you can open a file either in binary or non binary mode.

Q5. Does Python have the trailing newline while reading a line of text? Does Python append a newline when you write a line of text?

Answer: Python’s readline() function reads a complete line and then appends \n at the end of that line.

Q6. What file operations enable for random-access operation?

Answer: Only read operation is enabled for random=access operation and only line index and length of the line is stored in here without having to load entire file in the memory.

Q7. When do you think you'll use the struct package the most?

Answer: Struct package is used when we are converting native data types of strings,int to binary and vice-versa. Users can access binary formats of data stored in C language constructs inside python.

Q8. When is pickling the best option?

Answer: Pickling is used to store a python object in binary datastream and this data stream could be transported over any systems depending on the usage.

Q9. When will it be best to use the shelve package?

Answer: Shelve is used when we donot require relational databases to store our data and mostly use key-value pairs to access the same via creation of some objects.

Q10. What is a special restriction when using the shelve package, as opposed to using other data dictionaries?

Answer: If we want to insert a record with a keyname whose record is already present with us, the shelve package maynot allow us to insert or make necessary updates for the same.