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

Text files are organized around lines, each of which ends with a newline character ('\n'). The source code files are themselves text files. A binary file is the one in which data is stored in the file in the same way as it is stored in the main memory for processing.

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?

Text files are used to store data more user friendly. Binary files are used **to store data more compactly. If we want to readily interact with the files then go for text files but if we want to compact size of file to save or transfer then binary is good.**

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

In Python, bitwise operators are used to perform bitwise calculations on integers. The integers are first converted into binary and then operations are performed on bit by bit, hence the name bitwise operators

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

Using with means that **the file will be closed as soon as you leave the block**. This is beneficial because closing a file is something that can easily be forgotten and ties up resources that you no longer need.

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?

Python readline() method reads only one complete line from the file given. **It appends a newline (“\n”) at the end of the line**. If you open the file in normal read mode, readline() will return you the string.

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

getline(file, x) This function returns xth line from file.

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

The shelf dictionary has certain restrictions. **Only string data type can be used as key** in this special dictionary object, whereas any picklable Python object can be used as value

Q8. When is pickling the best option?

In Python, you can use pickle to serialize (deserialize) an object structure into (from) a byte stream.

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

The shelve module in Python's standard library is a simple yet effective tool for persistent data storage **when using a relational database solution is not required**.

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

The shelf dictionary has certain restrictions. **Only string data type can be used as key** in this special dictionary object, whereas any picklable Python object can be used as value