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

**Ans:** A text file stores data in the form of alphabets, digits and other special symbols by storing their ASCII values and are in a human readable format, whereas, a binary file contains a sequence or a collection of bytes which are not in a human readable format.

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?

**Ans:** One most common example of binary file is image file is .PNG or .JPG. If one tries open these files using a text editor then, he/she may get unrecognizable characters, but when opened using the supporting image viewer, the file will be shown as a single image.

Tet files are used to store notes, step-by-step instructions, manuscripts, and other text-based information.

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

**Ans:** On disc data always resides in binary format, so writing any integer data to disc need to convert in binary format first and reading integer data from first need to convert from binary to integer.

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

**Ans:** We do not have to write “file.close()” explicitly, this will be called automatically. Also, inside one with statement we can open multiple files.

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?

**Ans:** Yes, in both cases we have a default new line in last of text file.

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

**Ans:** ACCESS\_DEFAULT, ACCESS\_READ, ACCESS\_WRITE, or ACCESS\_COPY operations are found there in mmap module.

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

**Ans:** The struct module in Python is used to convert native Python data types such as strings and numbers into a string of bytes and vice versa. What this means is that users can parse binary files of data stored in C structs in Python.

It is used mostly for handling binary data stored in files or from network connections, among other sources.

Q8. When is pickling the best option?

**Ans:** Python pickle module is used for serializing and de-serializing a Python object structure. Any object in Python can be pickled so that it can be saved on disk.

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

**Ans:** 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. The shelf object defined in this module is dictionary-like object which is persistently stored in a disk file. This creates a file similar to dbm database on UNIX like systems. Only string data type can be used as key in this special dictionary object, whereas any picklable object can serve as value.

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

**Ans:** Only string data type can be used as key in this special dictionary object(shelve).