

Tutorial 2

1. What is digitization?
2. Compression is often used to reduce the size of files before sending them electronically.
 - i. Write an advantage for compressing files
 - ii. What is meant by lossy compression?
 - iii. What is meant by lossless compression?
3. Parity checking is used to detect errors that may occur during data transmission. The received bytes in the following table were transmitted using even parity.

Write “Yes” if each byte has been corrupted during transmission or Write “No” if not corrupted during transmission.

- i. 01101000
 - ii. 10010011
 - iii. 10101100
 - iv. 10100001
 - v. 00101001
4. Add the odd parity bit as the least significant bit for the following data.
 - i. 1100101
 - ii. 1101111
 - iii. 1010001
 - iv. 0010010
 - v. 1101011
 5. In a computer system 5 bits are used to represent a memory address. Calculate the total number of locations available in memory.
 6. What is the minimum number of bits required for the memory address in a computer which access 1 GB of memory directly?