Week 6 Assignment 6

This assignment aims to understand the concepts of week 6 and apply them to solve problems.

1. What is the circular convolution of the sequences x[n] and h[n], where x[n] = {1, 2, 3, 4, 5} and h[n] = {3, 2, 1}?
   - a)
   - b)
   - c)
   - d)
   - e)

2. Apply the Fourier Transform to a signal to calculate the frequency spectrum.
   - a) 2
   - b) 2
   - c) 2
   - d) 2
   - e) 2

3. Which of the following statements is true with respect to the Haar 3-D Transform?
   - a) Invertible
   - b) Non-invertible
   - c) Symmetry
   - d) None of the above

4. What is the number of different transforms in the Haar 3-D Transform?
   - a) 1
   - b) 2
   - c) 3
   - d) 4
   - e) 5

5. Which of the following is true with respect to the Haar 3-D Transform?
   - a) Linear
   - b) Non-linear
   - c) Symmetry
   - d) None of the above

6. What is the output of the Haar 3-D Transform?
   - a) 2
   - b) 2
   - c) 2
   - d) 2
   - e) 2

7. What is the complexity of the Haar 3-D Transform for an N-point Haar 3-D Transform?
   - a) N
   - b) N
   - c) N
   - d) N
   - e) N