

## **Tutorial week 1 on Introduction to Programming**

1. Distinguish between Hardware and Software.
2. What are the main components of a computer?
3. What does the CPU stand for and what is its role?
4. With the help of appropriate examples distinguish between primary (main) and secondary memory.
5. Write down all the bit permutations of 3 bits and 4 bits.
6. How many items can be represented by an 8-bit?
7. One terabyte is 2 to the power of \_\_\_\_\_.
8. What are the three main modules that consist the CPU and what are their roles?
9. Name and briefly describe the four programming language levels providing suitable examples of each.
10. What is a compiler and what is its function?
11. How do you differentiate between a compiler and an interpreter?
12. Name and describe with the help of suitable examples three types of errors that a program can contain.
13. What is the name of the machine language for the Java Virtual machine?
14. Describe what is an algorithm. Support your answer with an example.
15. How do you differentiate between an algorithm and a flowchart?
16. Draw the 7 standard symbols which are used in Flowchart and explain briefly the purpose of each of these.