1. You work as a team leader in a hardware development organisation that specialises in building Internet of Things (IoT) systems. Explain to your line manager computers need a language of their own. Give two examples each, of a natural and an artificial language in this context.
2. A graduate assistant at Bingham University, you are approached by your students on the topic of programming languages. Explain to them: why do people in the modern need world need programming languages, a category of programming languages and, who defines and standardises a language.
3. Explain how the von Neumann architecture influences language design. Show diagram of the architecture.
4. Explain, showing diagrams, one of the language implementation methods.
5. Given the statement:

while(Boolean\_expr) statement;

enumerate the semantics of this statement.

1. Given the statement: A=B-(A\*C)/D
2. Provide the derivation for the statement.
3. Provide the parse tree the expression.
4. Why is ambiguity said to be a problem in designing programming languages?