Here are two grammars for languages built from terminals $a$ and $b$:

**Grammar A:**
- $S \rightarrow C \ a \ C \ b \ A$
- $A \rightarrow B$
- $A \rightarrow S$
- $B \rightarrow \epsilon$
- $B \rightarrow b$
- $C \rightarrow \epsilon$

**Grammar B:**
- $S \rightarrow A \ b$
- $A \rightarrow \epsilon$
- $A \rightarrow A \ a \ b$

In both grammars $S$ is the start symbol.

(a) The languages $L(A)$ and $L(B)$ for grammars A and B are not equal.

(i) Give an example of a string that is in $L(A)$ but not in $L(B)$.

(ii) Give an example of a string that is in $L(B)$ but not in $L(A)$.

[2 marks]

(b) Give regular expressions describing each of $L(A)$ and $L(B)$.

[4 marks]

(c) Compute NULLABLE, FIRST sets and FOLLOW sets for each grammar.

[6 marks]

(d) State with justification whether each grammar is LL(1) and whether it is SLR(1).

[8 marks]