Compiler Design Lab Mid Sem Exam

Instructions :   **Duration: 60mins**
1. First implement the program and then finish the write up with sample input, output and/or error(s)/warning(s) if any.
2. Students can reuse the existing lab program code for the implementation.
3. Submit the written solution in the sheet provided to the concerned lab handling faculty members.

1. Implement the entire Lexical analyzer with symbol table for the following input code.

Input to be used.

```
#! /usr/bin/perl
#get total number of arguments passed.
$n = scalar (@_);
$sum = 0;
foreach $item(@_) {
$sum += $item;
}
$average = $sum + $n;
```

#! - Represents path which has to be ignored by getNextToken().
- followed by any character other than ! represents comments.
$n - $ followed by any identifier should be treated as a single token.
scalar, foeach are considered as keywords.
@_, += are treated as single tokens.
Assume the datatype for the identifiers. Remaining symbols are tokenized accordingly.

Sample Output:

Index_No	Lexeme_Name	Type	Size
1	$n	int	4
2	$sum	int	4
...	...	...	...
...	...	...	...