

8 (a) Outline the purpose of lexical analysis during the compilation of a program.

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..... [2]

(b) Write the Reverse Polish Notation (RPN) for the given infix expression:

$$(2 - 6) * (13 + 7) / 5$$

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..... [2]

(c) The RPN expression:

$$d a b + * c a - /$$

is to be evaluated, where:

$$a = 6, b = 12, c = 15 \text{ and } d = 5.$$

Show the changing contents of the stack as the RPN expression is evaluated.

