

7 (a) Outline the process of optimisation during the compilation of a program.

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..... [2]

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

$$((6 + 12) / (16 - 10)) * 18$$

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..... [3]

(c) The RPN expression

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

is to be evaluated, where:

$$a = 4, b = 12, c = 24 \text{ and } d = 6.$$

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

