

VCE Circus

<https://vce-circus.logicfronttoback.nz/>

Comments on the 2025 Examination and Examiners Report

Overall it's a straightforward examination with a fair marking plan – only a couple of comments.

Section B

Q 3 The circuit presented by the soccer coach is mystifying. The intention is “to play a short celebratory song from a speaker” depending on the presence or not of the ball, yet there is no audio input. It is difficult to understand how the circuit would function. It seems that under some conditions the NPN transistor on the right could draw a high current from the battery to the detriment of the transistor and/or the battery

Q6 It is not clear why Alex is keen to have the light on when he is pedalling rather than when the bicycle is moving. If he stops pedalling when going downhill then the light goes off. Bicycle lights that use generators generally drive the generator from one of the road wheels. There are two likely options for powering the LED, either a DC generator with a commutator or an AC generator feeding a bridge rectifier.

Comments? Email Harlan via logic@logicfronttoback.nz