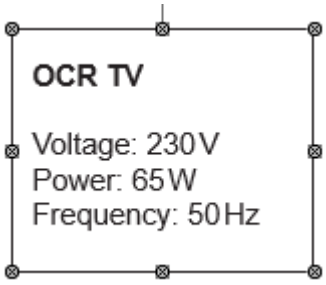
Oxford Cambridge and RSA

GCSE Physics A (Gateway)

J249/03 Physics A P1-P4 and P9 (Higher Tier)

Question Set 10

1 A TV has the label below on it.



(a) Calculate the **current** in the TV when it is turned on.

Use the equation: power = potential difference × current

Give your answer to **2** significant figures.

$65 = 230I$

$I = \frac{13}{46} = 0.28260869\,57 \approx 0.28$ (2sf)

Current = 0.28 A

[4]

(b) The TV is turned on for 30 minutes.

Calculate the energy transferred by the TV.

$P = \frac{E}{t} \rightarrow Pt = E$

$65 \times (30 \times 60) = E$

$117000 = E$

120000 (2sf)

Energy used = 1.2×10^5 J

[4]

Total Marks for Question Set 10: 8