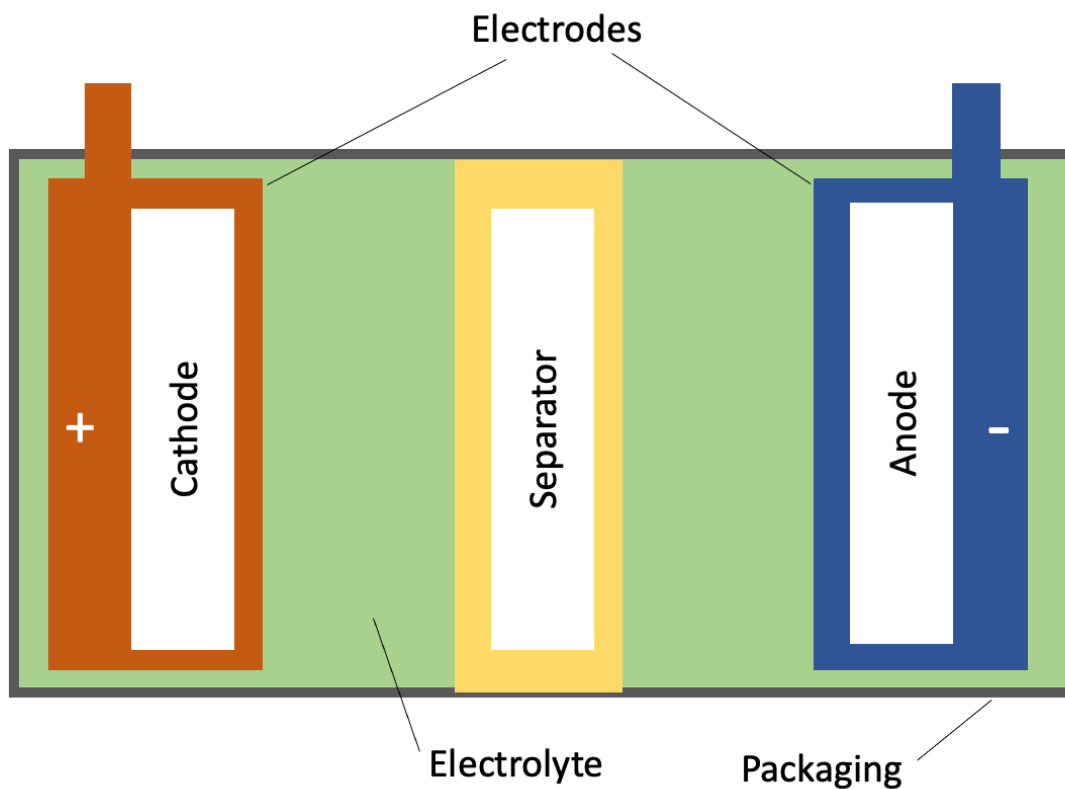**Question 1**. Can you identify the following parts of a typical battery?
   A) Electrodes
   B) Electrolyte
   C) Packaging
   D) Cathode
   E) Separator
   F) Anode

Question 2a. Calculate the capacity of a 12V battery which stores 30 Wh of energy?

The energy (E) expressed in watt-hours (Wh) stored in a battery is equal to the product of the voltage (V) and the capacity (Q) measured in amp hours.

$E = Q * V$

Rearranging this:

$Q = E/V$

Substituting in the values:

$Q = 30/12 = $ 2.5 Ah

Question 2b. Calculate the C-rate of a battery with a runtime of 2 hours.

The runtime (t) of a battery is:

$t = 1/C$

Substitute in the values:

$t = 1/2 = $ 0.5C

Question 2c. Calculate the discharge current of the battery using the capacity calculated in question 2a and the C-rate found in question 2b?

The discharge current (I) of a battery is equal to the product of the C-rate and the capacity (Q):

$I = $ C-rate $* Q$

Substituting in the values from 2b and 2c:

$I = 0.5 * 2.5 = $ 1.25 A