

6 (a) (i) Define the *capacitance* of a parallel plate capacitor.

.....

.....

..... [2]

(ii) State **three** functions of capacitors in electrical circuits.

1.
2.
3. [3]

(b) A student has available four capacitors, each of capacitance $24\ \mu\text{F}$.

The capacitors are connected as shown in Fig. 6.1.

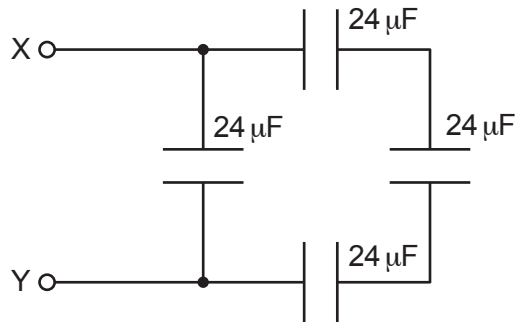


Fig. 6.1

Calculate the combined capacitance between the terminals X and Y.

capacitance = μF [2]