# Capacitance – 2020 A2

**1.** Nov/2020/Paper_41/No.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 μF.

The capacitors are connected as shown in Fig. 6.1.

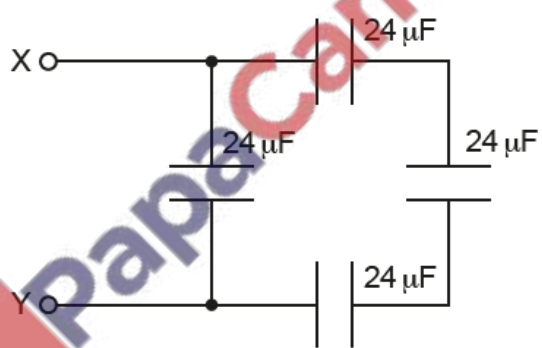


**Fig. 6.1**

Calculate the combined capacitance between the terminals X and Y.

capacitance = ..... μF [2]

[Total: 7]

**2.** Nov/2020/Paper_42/No.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 **three** capacitors, each of capacitance 12 μF.

Draw diagrams, one in each case, to show how the student connects the capacitors to give a combined capacitance between the terminals of:

**(i)** 18 μF

[1]

**(ii)** 8 μF.

[1]

[Total: 7]