Exercise 7.1

Question 1:

Complete the following statements:

(a) Two line segments are congruent if _____.

(b) Among two congruent angles, one has a measure of $70°$, the measure of other angle is _____.

(c) When we write $\angle A = \angle B$, we actually mean _____.

Answer 1:

(a) they have the same length

(b) $70°$

(c) $m\angle A = m\angle B$

Question 2:

Give any two real time examples for congruent shapes.

Answer 2:

(i) Two footballs (ii) Two teacher's tables

Question 3:

If $\Delta ABC \cong \Delta FED$ under the correspondence $ABC \leftrightarrow FED$, write all the corresponding congruent parts of the triangles.

Answer 3:

Given: $\Delta ABC \cong \Delta FED$.

The corresponding congruent parts of the triangles are:

(i) $\angle A \leftrightarrow \angle F$

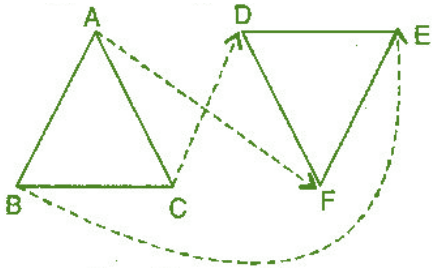
(ii) $\angle B \leftrightarrow \angle E$

(iii) $\angle C \leftrightarrow \angle D$

(iv) $\overline{AB} \leftrightarrow \overline{FE}$

(v) $\overline{BC} \leftrightarrow \overline{ED}$

(vi) $\overline{AC} \leftrightarrow \overline{FD}$



Question 4:

If $\Delta DEF \cong \Delta BCA$, write the part(s) of ΔBCA that correspond to:

(i) $\angle E$

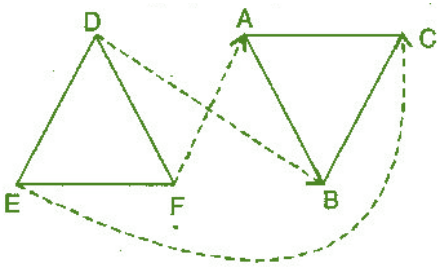
(ii) $\overline{EF}$

(iii) $\angle F$

(iv) $\overline{DF}$

Answer 4:

Given: $\Delta DEF \cong \Delta BCA$.



(i) $\angle E \leftrightarrow \angle C$

(ii) $\overline{EF} \leftrightarrow \overline{CA}$

(iii) $\angle F \leftrightarrow \angle A$

(iv) $\overline{DF} \leftrightarrow \overline{BA}$