DPP – 01
CLASS –10th
TOPIC – CONGRUENT & SIMILAR FIGURES

Q.1 Fill in the blanks using the correct word given in brackets :

(i) All circles are ……. (congruent, similar).

(ii) All squares are ……. (similar, congruent).

(iii) All …….. triangles are similar (isosceles, equilaterals) :

(iv) Two triangles are similar, if their corres-ponding angles are ……. (proportional, equal)

(v) Two triangles are similar, if their corres-ponding sides are …….. (proportional, equal)

(vi) Two polygons of the same number of sides are similar, if (a) their corresponding angles are …….. and (b) their corres-ponding sides are …….. (equal, proportional).

Q.2 Write the truth value **(T/F)** of each of the following statements :

(i) Any two similar figures are congruent.

(ii) Any two congruent figures are similar.

(iii) Two polygons are similar, if their corresponding sides are proportional.

(iv) Two polygons are similar if their corresponding angles are proportional.

(v) Two triangles are similar if their corresponding sides are proportional.

(vi) Two triangles are similar if their corresponding angles are proportional.

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Sol.1 (i) All circles are **similar.**

(ii) All squares are **similar.**

(iii) All **equilaterals** triangles are **similar.**

(iv) Two triangles are similar, if their corresponding angles are **equal.**

(v) Two triangles are similar, if their corresponding sides are **proportional.**

(vi) Two polygons of the same number of sides are similar, if (a) their corresponding angles are **equal** and (b) their corresponding sides are **proportional.**

Sol.2 (i) False : In some cases, the similar polygons can be congruent.

(ii) True.

(iii) False : Its corresponding angles must be equal also.

(iv) False : Angle are equal not proportional.

(v) True.

(vi) False : Sides should be proportional and corresponding angles should be equal.