Sub.: Maths

Question Paper

Marks: 20

Std.: VIIIth-S.B.

13. Congruence of triangles

Time: 45 min.

Q.1 : A) Select the most appropriate Alternative.

1) A

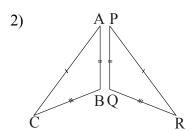
In the figure, $\triangle ABC$ is congruent with $\triangle PQC$ by _____ test.

a) ASA

b) Hypotenuse-side

c) AAS

d) SAS



With the information given in the figure $\angle ACB \cong$

- a) ∠QPR
- b) ∠CAB
- c) ∠PRQ
- d) ∠ABC

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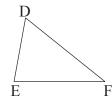
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: B) Solve the following.

1) Write the criteria for congruence of triangles.

Q.2 : A) Solve any one of the following. (Activity)

1) Fill in the blank of the following questions referring to the adjacent figure.

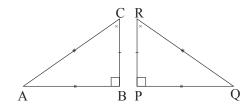


- i) _____ is the angle opposite to the side DE.
- ii) _____ is the side opposite to $\angle E$.
- iii) _____ is included by side DE and side DF.
- iv) _____ is included by $\angle E$ and $\angle F$.

2) Activity: Fill in the blank

 ΔABC and ΔPQR are congruent. Their congruent parts are indicated by the identical marks.

Anil and Rehana had written congruence of the triangles as follows.

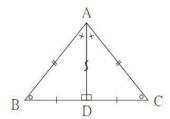


Anil : ΔABC ≅

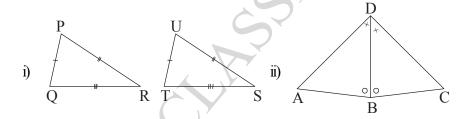
Rehana : ΔBAC ≅

: B) Solve any one of the following.

1) In the given figure, the identical marks show the congruent parts in the pair of triangles. State the correspondence between the vertices of the triangles in which the two triangles are congruent.

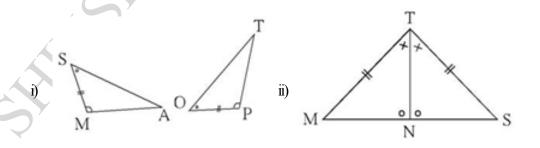


2) In the given figures parts of triangles bearing identical marks are congruent. State the test and the one to one correspondence of vertices by which the triangles in each pair are congruent.



Q.3 : A) Solve any one of the following. (Activity)

1) In each pair of triangles in the following figures, parts bearing identical marks are congruent. State the test and correspondence of vertices by which triangles in each pair are congruent.

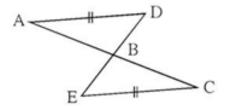


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\rightarrow	i) The triangles are congruent by	test under the correspondence SMA \leftrightarrow
	ii) The triangles are congruent by	test under the correspondence MTN ↔

2) In the adjacent figure, seg AD \cong seg EC Which additional information is needed to show that $\triangle ABD$ and $\triangle EBC$ will be congruent sby A-A-S test?

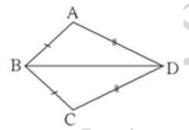


The additional information that is needed to show $\triangle ABD$ and $\triangle EBC$ congruent by AAS test would be

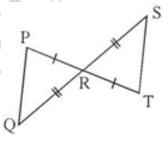
- : B) Solve any one of the following.
 - 1) In the adjacent figure, congruent sides of $\square ABCD$ are shown by identical marks. State if there are any pairs of congruent angles in the figure.

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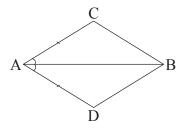
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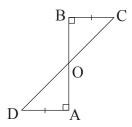
2) In pair of triangles given below, parts shown by identical marks are congruent. State the test and the one to one correspondence of vertices by which triangles in pair are congruent write the remaining congruent parts.



- Q.4 : Solve any one of the following.
 - 1) In quadrilateral ABCD. AC = AD and AB bisects $\angle A$ (see figure, show that $\triangle ABC \cong \triangle ABD$, What can you say about BC and BD?



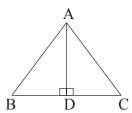
2) AD and BC are equal perpendicular to a line segment AB. Show that CD bisects AB. (i.e. OB = OA) (see figure).



Q.5 : Solve any one of the following.

1) In \triangle ABC, AD is the perpendicular bisector of BC (see figure). Show that \triangle ABC is an isosceles triangle in which AB = AC.

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- 2) In the adjacent figure, parts of triangles indicated by identical marks are congruent.
 - i) Identify the one to one correspondence of vertices in which the two triangles are congruent and write the congruence in two ways.
 - ii) State with reason, whether the statement, $\Delta XYZ \cong \Delta STU$ is right or wrong.

