PRISM WORLD

Std.: 9 (English) **Maths - II** **Marks: 20**

Date: **Time: 1 hour**

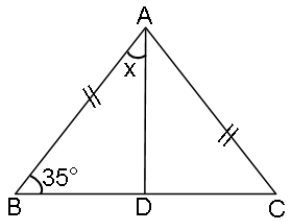
Chapter: 3

Q.1 Choose the correct alternative. **(3)**

1) Two right triangles are congruent if hypotenuse and a side of one triangle are respectively equal to the hypotenuse and a side of other triangle

a. True b. False

2) Find x



a. 55° b. 70° c. 35° d. 110°

3)

In △ABC, if ∠A = 40°, ∠B = 60°. Which is the longest and shortest side of the triangle.

a. Longest = AB, Shortest = BC b. Longest = BC, Shortest = AB

c. Longest = AC, Shortest = BC d. Longest = BC, Shortest = AC

Q.2 Solve the following questions. (Any three) **(9)**

1)

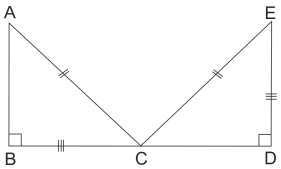
In the adjoining figure, ∠ABC = ∠CDE = 90°, seg AC ≅ seg CE, seg BC ≅ seg ED.

Show that:

i. $\Delta ABC \cong \Delta CDE$

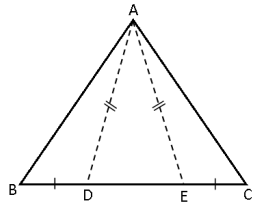
ii. $\angle BAC \cong \angle ECD$

iii. $\angle ACE = 90^\circ$



2)

In the adjoining figure, point D and point E are on side BC of △ABC such that BD = CE and AD = AE. Prove that △ ABD ≅ △ ACE.

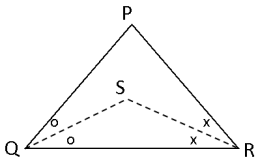


3)

In △PQR, ∠Q = 90º, PQ = 12, QR = 5 and QS is median. Find l (QS).

4)

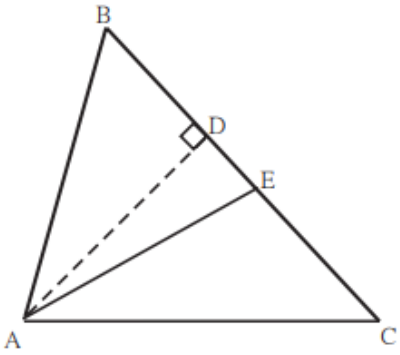
In △PQR, If PQ > PR. and bisectors of ∠QR and ∠R intersect at point S. Show that SQ > SR.



Q.3 Solve the following questions. (Any two) **(8)**

1)

In the adjoining figure, seg AD ⊥ seg BC, seg AE bisects ∠CAB and C - E - D. Prove that m∠DAE = $\frac{1}{2}$ (∠B - ∠C)



2) If two angle of a triangle are unequal then the side opposite to the greater angle is greater than the side opposite to smaller angle.

3)

In □PQRS, side PS ∥ side QR and side PQ ≅ side SR, Side QR > side PS then prove that ∠PQR ≅ ∠SRQ