**CBT EXAM SEPTEMBER (2025-26)**
**CLASS IX (MATHS)**

**# SYLLABUS :**

CHAPTER 7 : TRIANGLES

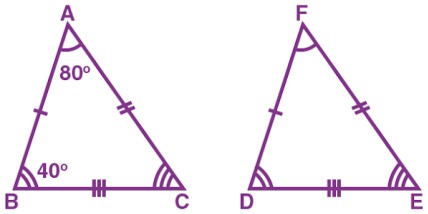
**Q 1 : For two triangles, if two angles and the included side of one triangle are equal to two angles and the included side of another triangle. Then the congruency rule is:**
a) SSS b) ASA c) SAS d) None of the above

**Q 2 : If E and F are the midpoints of equal sides AB and AC of a triangle ABC. Then:**
a) BF = AC b) BF = AF
c) CE = AB d) BF = CE

**Q 3 : Which of the following is not a criterion for congruence of triangles?**
a) SAS b) ASA c) SSA d) SSS

**Q 4 : In triangles ABC and XYZ, AB = AC, ∠C = ∠X and ∠B = ∠Y. The two triangles are:**
a) Congruent but not isosceles
b) Isosceles but not congruent
c) Isosceles and congruent
d) Neither congruent nor isosceles

**Q 5 : It is given that Δ ABC ≅ Δ FDE and AB = 5 cm, ∠B = 40° and ∠A = 80°. Then which of the following is true?**




a) DF = 5 cm, ∠E = 60°
b) DF = 5 cm, ∠F = 60°
c) DE = 5 cm, ∠E = 60°
d) DE = 5 cm, ∠D = 40

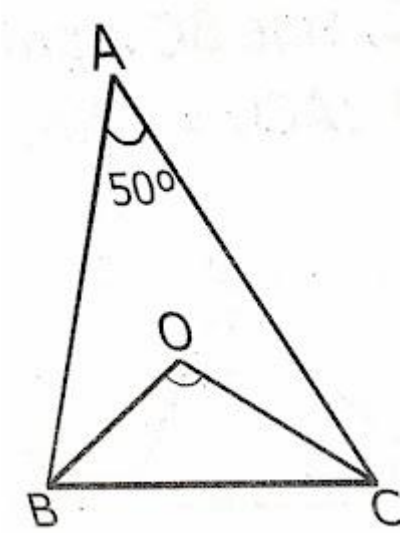
**Q 6 : The sides (in cm ) of a Right angle triangle are (x-18), (x-25) and x. Its area is :**
a) 1329
b) 1311
c) 1320
d) 1314

**# ASSERTION & REASONING QUESTIONS DIRECTION :**

In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:
**(a)**Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).

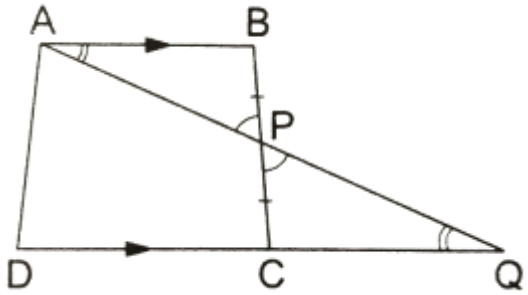
**(b)**Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
**(c)**Assertion (A) is true but reason (R) is false.
**(d)**Assertion (A) is false but reason (R) is true.

**Q 7 : Assertion :** In the given figure, BO and CO are the bisectors of ∠B and ∠C respectively. If ∠A = 50° then ∠BOC = 115°
**Reason :** The sum of all the interior angles of a triangle is 180°




(a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
(b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
(c) Assertion (A) is true but reason (R) is false.
(d) Assertion (A) is false but reason (R) is true.

**Q 8 : Assertion :** In the given figure, ABCD is a quadrilateral in which AB || DC and P is the midpoint of BC. On producing, AP and DC meet at Q then DQ = DC + AB.
**Reason :** If two sides and the included angle of one triangle are equal to two sides and the included angle of the other triangle, then the two triangles are congruent.




(a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
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**# CASE STUDY BASED :**

**In a park, there are two triangular flower beds. Flower bed ABC has sides AB = 8 cm, BC = 6 cm, and CA = 10 cm. Flower bed PQR has sides PQ = 8 cm, QR = 10 cm, and RP = 6 cm.**

**Q 9 : Using the given information, can we conclude that flower bed ABC is congruent to flower bed PQR? Why or why not?**

a) Yes, because all three sides of ABC are equal to the corresponding sides of PQR.

b) Yes, because all three angles of ABC are equal to the corresponding angles of PQR.

c) No, because the sides and angles of ABC and PQR are not equal.

d) Yes, because ABC and PQR are both triangular flower beds.

**Q 10 : In flower bed ABC, a new side AD is added such that AD = 8 cm. Now, can we conclude that triangle ABD is congruent to triangle PQR? Why or why not?**

a) Yes, because all three sides of ABD are equal to the corresponding sides of PQR.

b) Yes, because all three angles of ABD are equal to the corresponding angles of PQR.

c) No, because the sides and angles of ABD and PQR are not equal.

d) Yes, because both triangles have a side of 8 cm.