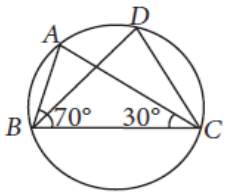
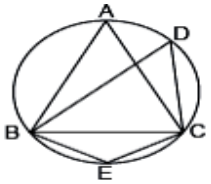
INDIAN SCHOOL SOHAR **SET II**

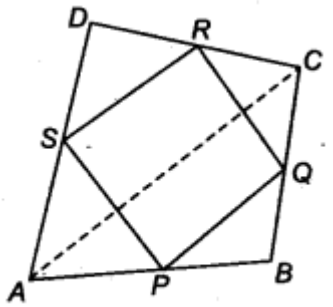
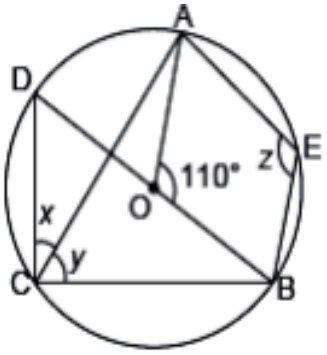
PERIODIC ASSESSMENT-III (2023-24)
MATHEMATICS (CODE-041)

CLASS: IX **MAX. MARKS: 20**
DATE: 16/01/24 **TIME: 40 MINUTES**

General Instructions:

1. This Question paper contains - four sections A, B, C and D. Each section is compulsory. However, there are internal choices in some questions.
2. Section A has 4 MCQ's and 1 Assertion-Reason based questions of 1 mark each.
3. Section B has 2 Very Short Answer (VSA)-type questions of 2 mark each.
4. Section C has 2 Short Answer (SA)-type questions of 3 mark each.
5. Section D has 1 Long Answer (LA)-type questions of 5 marks.

	SECTION – A (Multiple Choice Questions) Each question carries 1 mark
1.	If $x - 2$ is a factor of $2x^3 + x^2 - 4x + m$, then the value of m is (a) –12 (b) 12 (c) 10 (d) -10
2.	The value of the polynomial $6x + 12x^2 - 4$ at x=0 is (a) 6 (b) 12 (c) 4 (d) – 4
3.	The two diagonals are equal in a (a) rhombus (b) trapezium (c) parallelogram (d) rectangle
4.	The bisectors of any two adjacent angles of a parallelogram intersect at, (a) 90° (b) 30° (c) 45° (d) None of the above.
5.	Assertion(A): In the given figure, ∠ABC = 70° and ∠ACB = 30°. Then, ∠BDC = 80°.  Reason(R): Angles in the same segment of a circle are equal. ***Directions:*** Choose the correct answer out of the following choices: (a)Both Assertion (A) and Reason(R) are true and Reason(R) is the correct explanation of the Assertion(A). (b)Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A). (c)Assertion (A) is true, but Reason (R) is false. (d)Assertion (A) is false, but Reason (R) is true.
	SECTION – B [This section comprises of very short answer type questions (VSA) of 2 marks each]
6.	Prove that equal chords subtend equal angles at the center. **OR** In the given figure, ΔABC is equilateral. Find ∠BDC and ∠BEC. 

7.	Diagonal AC of a parallelogram ABCD bisects ∠A. Show that (i) it bisects ∠C also, (ii)ABCD is a rhombus.
	SECTION – C [This section comprises of short answer type questions (SA) of 3 marks each]
8.	ABCD is a quadrilateral in which P, Q, R and S are mid-points of the sides AB, BC, CD and DA (see figure). AC is a diagonal. Show that (i) PQ = SR (ii) PQRS is a parallelogram.  **OR** ABCD is a trapezium in which AB || CD and AD = BC. Show that (i) ∠A=∠B (ii) ∠C=∠D
9.	In the given figure, O is the center of the circle and ∠AOB = 110°, find the value of x, y and z. 
	SECTION – D [This section comprises of long answer type questions (LA) of 5 marks]
10.	The polynomial $p(x) = x^4 – 2x^3 + 3x^2 – ax + 3a – 7$ when divided by x + 1, leaves the remainder 19. Find the value of a. Also, find the remainder when p(x) is divided by x + 2.

**********THE END **********