

# Grade :12 PERIODIC TEST – 1 Date:14 .06.22

# Marks: 20 MATHEMATICS (041) Time : 40min

**EACH QUESTION IN SECTION A CARRIES ONE MARK**

**EACH QUESTION IN SECTION B CARRIES TWO MARKS**

**EACH QUESTION IN SECTION C CARRIES THREE MARKS**

**EACH QUESTION IN SECTION D CARRIES 5 MARKS**

**STUDENTS HAVE TO ANSWER ALL THE QUESTIONS.**

**SECTION A**

1. If A is a square matrix of order 2 and |adj.A |= 9, then |A| is equal to

a)3 b)9 c)27 d)81

 2. The Value of k for which the matrix has no inverse is

a) k = b) k = c) 𝑘 ≠ d) 𝑘 ≠

 3. If A is square matrix satisfying A2 = I, then what is the inverse of A ?

**SECTION B**

4. If A = be such that A-1 = k A, then find the value of k.

5. Solve the system of equations + 2y = 12, + 3y = 13

6. Let A = verify that (A-1) -1 = A

**SECTION C**

7. Given A = , B = and C = , find a matrix X such that AXB = C.

8. a)Solve system of linear equations using matrix method.

2x + 3y z = 9, x + y + z = 9, 3x y z = 1

**SECTION D**

9. A = , B = , verify that (AB)-1 = B-1A-1

**ALL THE BEST**