

**INDIAN SCHOOL SOHAR**  
**PERIODIC TEST - 1**  
**MATHEMATICS**

Date: 18-05-2017

Class: X

Time: 40mnts

Marks: 20

General Instructions:

- All questions are compulsory.
- Section A comprises 3 questions of 1 mark each, Section B comprises 2 questions of 2 marks each, Section C comprises 3 questions of 3 marks each and Section D comprises 1 question of 4 marks.

**SECTION A**

1. If A, B are the zeros of  $x^2 + 5x + 8$ , then find the value of  $A + B$ .
2. For what value of k, do the equations  $3x - y = 8$  and  $6x - ky = 16$ , represent coincident lines.
3. If the HCF of 65 and 117 is expressible in the form  $65p - 117$ , then find the value of p.

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**SECTION A**

1. If the HCF of 65 and 117 is expressible in the form  $65p - 117$ , then find the value of p.
2. For what value of m, do the equations  $3x - y = 8$  and  $6x - my = 16$ , represent coincident lines.
3. If  $\alpha, \beta$  are the zeros of  $x^2 - 5x + 8$ , then find the value of  $\alpha + \beta$ .

**SECTION B.**

4. Find the value of “m” if one zero of the polynomial  $(m^2 + 4)x^2 + 65x + 4m$  is reciprocal of the other.
5. Find the HCF of 867 and 255 by Euclid’s method.

**SECTION C**

6. Prove that  $2 + 3\sqrt{5}$  is irrational.
7. Find the zeros of the polynomial  $p(x) = 4\sqrt{3}x^2 + 5x - 2\sqrt{3}$ .
8. If  $\alpha, \beta$  are zeros of a quadratic polynomial  $f(x) = kx^2 + 4x + 4$  such that  $\alpha^2 + \beta^2 = 24$ , find the value of “k”.

**SECTION D**

9. The ratio of incomes of two persons is 9:7 and the ratio of their expenditures is 4:3. If each of them saves Rs 200 per month, find their monthly incomes.

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**SECTION B.**

4. Find the HCF of 870 and 225 by Euclid’s method.
5. Find the value of “p” if one zero of the polynomial  $(p^2 + 4)x^2 + 65x + 4p$  is reciprocal of the other.

**SECTION C**

6. Prove that  $5 + 3\sqrt{2}$  is irrational.
7. If A, B are zeros of a quadratic polynomial  $p(x) = mx^2 + 4x + 4$  such that  $\alpha^2 + \beta^2 = 24$ , find the value of “m”.
8. Find the zeros of the polynomial  $p(y) = 4\sqrt{3}y^2 + 5y - 2\sqrt{3}$ .

**SECTION D**

9. The ratio of incomes of two persons is 9:7 and the ratio of their expenditures is 4:3. If each of them saves Rs 200 per month, find their monthly incomes.

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