SET - 1

INDIAN SCHOOL SOHAR
PERIODIC ASSESSMENT – 1 (2019-20)
MATHEMATICS

CLASS: X **MAX. MARKS: 15**
DATE: 16/05/2019 **DURATION: 45 MINS**

General Instructions: 1. All questions are compulsory.
2. The question paper consists of 6 questions divided into 4 sections A, B, C and D.
3. Section A comprises of 1 question of 1 mark. Section B comprises of 2 questions of 2 marks each. Section C comprises of 2 questions of 3 marks each. Section D comprises of 1 question of 4 marks.
4. There is no overall choice. However, an internal choice has been provided in one question of 2 marks each, one question of 3 marks each, one question of 4 marks .You have to attempt only one of the alternatives in all such questions.
5. Use of calculators is not permitted.

SECTION A

1. The sum and product of zeroes a quadratic polynomial are 2 and -15 respectively. Find the quadratic polynomial.

SECTION B

2. Is 7 x 11 x 13 + 11 a composite number ? Justify your answer.

OR

Given LCM of (26, 169) = 338, what is HCF of (26, 169) ?

SET - 2

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SECTION A

1. The product and sum of zeroes a quadratic polynomial are 2 and −15 respectively. Find the quadratic polynomial.

SECTION B

2. Is 7 x 11 x 13 + 7 a composite number ? Justify your answer.

OR

HCF and LCM of a and b are 19 and 152. If a = 38 , find b.

3. Is the system of linear equations $2x + 3y - 9 = 0$ and $4x + 6y = 18$ consistent ? Justify your answer

SECTION C

4. If α and β are the zeroes of the polynomial $x^2 - 2x + 3$, then find the polynomial whose zeroes are 2α and 2β.

OR

What must be subtracted to $x^3 - 4x^2 + x - 6$ so that $x^2 + 2x - 3$ becomes its factor?

5. Prove that $5 + \sqrt{3}$ is an irrational number.

SECTION D

6. The car hire charges in a city consist of a fixed charge for the first two kilometres and additional charge for each kilometre covered thereafter. For a distance of 7 km the charge paid is Rs 210 and for a distance of 10 km the charge paid is Rs 270. How much does a person have to pay for travelling 15 km?

OR

Eight times a two digit number is equal to three times the number obtained by interchanging the digits. If the difference between the digits is 5, find the number.

3. Is the system of linear equations $2x + 3y = 9$ and $4x + 6y - 18 = 0$ consistent ? Justify your answer

SECTION C

4. Prove that $2 - \sqrt{3}$ is an irrational number.
5. If α and β are the zeroes of the polynomial $x^2 - 3x + 2$, then find the polynomial whose zeroes are 3α and 3β.

OR

What must be added to $x^3 - 4x^2 + x - 6$ so that $x^2 + 2x - 3$ becomes its factor?

SECTION D

6. The car hire charges in a city consists of a fixed charge for the first three kilometres and additional charge for each kilometre covered thereafter. For a distance of 7 km the charge paid is Rs 210 and for a distance of 10 km the charge paid is Rs 270. How much does a person have to pay for travelling 14 km?

OR

The sum of the digits of a two digit number is 12. The number obtained by interchanging the two digits exceeds the given number by 18. Find the number.