INDIAN SCHOOL SOHAR
FORMATIVE ASSESSMENT- I **SET-II**
SUBJECT: MATHEMATICS

CLASS: X **MARKS: 20**
DATE: 07. 05. 14 **TIME: 45 minutes**

GENERAL INSTRUCTIONS:

- *All questions are compulsory.*
- *The question paper consists of 9 questions divided into 4 sections A,B,C and D. Section A comprises of 3 questions of 1 mark each, section B comprises of 2 questions of 2 marks each, section C comprises of 3 questions of 3 marks each and section D comprises of 1 question of 4 marks.*

SECTION A

1. Find the decimal expansion of the rational number $\frac{73}{2^2 \times 5^4}$(without actually performing long division).
2. What is the smallest number that, when divided by 100, 50 and 20 leaves remainder of 7 in each case?
3. If one zero of $2x^2 - 3x + k$ is reciprocal to the other, then find value of k.

SECTION B

4. Use Euclid's division algorithm to find the HCF of 1260 and 7344.
5. Prove that n^2-n is divisible by 2 for every positive integer n.

SECTION C

6. Prove that $3 - 5\sqrt{2}$ is an irrational number.
7. If $\alpha and\ \beta$ are the zeroes of the quadratic polynomial $f(x) = x^2 - 5x + 8$, find a quadratic polynomial whose zeroes are $\frac{\beta}{\alpha} and\ \frac{\alpha}{\beta}$
8. Find the LCM and HCF of 42, 70 and 84 by using fundamental theorem of arithmetic.

SECTION D

9. Find all the zeroes of the polynomial $2x^4 - 3x^3 - 3x^2 + 6x - 2$, if two of its zeroes are $\sqrt{2}$ and $-\sqrt{2}$.

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