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INDIAN SCHOOL SOHAR
PERIODIC TEST 1 (2017-18 **SET 1**
MATHEMATICS

Date : 22.05.17 **Marks: 20**
Class : IX **Time: 40 minutes**

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 each.

SECTION A

1. Give an example of two irrational numbers whose difference is a rational number.
2. Find the value of $f(x) = 4x^3 - 3x^2 - 4$ at $x = -2$.
3. Find the value of $\left(\frac{1}{0.064}\right)^{\frac{1}{3}}$

SECTION B

4. Simplify: $12\sqrt{18} - 6\sqrt{20} - 3\sqrt{50} + 8\sqrt{45}$
5. If $x - 2$ is a factor of $kx^3 - x^2 + 2x + 4$, find the value of k.

INDIAN SCHOOL SOHAR **No of printed pages: 2**
PERIODIC TEST 1 (2017-18) **SET 2**
MATHEMATICS

Date : 22.05.17 **Marks: 20**
Class : IX **Time: 40 minutes**

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 each.

SECTION A

1. Give an example of two irrational numbers whose sum is a rational number.
2. Find the remainder when $4x^3 - 3x^2 + 2x + 4$ is divided by $x + 2$.
3. Find the value of $\left(\frac{1}{0.125}\right)^{\frac{1}{3}}$

SECTION B

4. If $x + 1$ is a factor of $kx^3 + x^2 - 2x + 4k - 9$, find the value of k.
5. Simplify $\sqrt[4]{81} - 8\sqrt[3]{216} + 15\sqrt[5]{32} + \sqrt{225}$

SECTION C

6. If $\frac{3-\sqrt{5}}{3+\sqrt{5}} = a + b\sqrt{5}$, find the values of a and b.
7. Find the square root of 4.2 geometrically.
8. If polynomials $kx^3 + 3x^2 - 3$ and $2x^3 - 5x + k$ leave the same remainder when each is divided by $x - 4$, find the value of k.

SECTION D

9. Factorise $x^3 + 6x^2 + 11x + 6$

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SECTION C

6. Find the square root of 5.2 geometrically.
7. If polynomials $kx^3 + 3x^2 - 3$ and $2x^3 - 5x + k$, when divided by $x - 4$ each leave remainders m and n respectively and $m - n = 0$, find the value of k.
8. If $\frac{3-\sqrt{7}}{3+\sqrt{7}} = a + b\sqrt{7}$, find the values of a and b.

SECTION D

9. Factorise $x^3 - 3x^2 - 9x - 5$

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