



**INDIAN SCHOOL DARSAIT**  
**DEPARTMENT OF MATHEMATICS**



Subject : MATHEMATICS      Topic : REAL NUMBERS      Date of Worksheet : 18/04/2017

Resource Person: Mrs.Indu.P

Date of submission : 25/04/2017

Name of the Student \_\_\_\_\_ Class & Division: \_\_\_\_\_ Roll Number : \_\_\_\_\_

Sl.No.	HOT QUESTIONS	Marks
1.	Find the largest number which divides 546 and 764 , leaving remainders 6 and 8 respectively.	3
2.	If the H.C.F. of the numbers 30375 and 141750 is of the form $a^4 \times b^a$ , then find the values of $a$ and $b$ .	4
3.	Show that product of 3 consecutive natural numbers is divisible by 6.	4
4.	Show that there is no positive integer $n$ for which $\sqrt{n+1} + \sqrt{n-1}$ is rational.	4
5.	If $p$ and $q$ are prime positive integers , prove that $\sqrt{p} + \sqrt{q}$ is an irrational number.	3
6.	Write whether $\frac{2\sqrt{45} + 3\sqrt{20}}{2\sqrt{5}}$ on simplification gives a rational or an irrational number	2
7.	Express the HCF of 468 and 222 as $468x + 222y$ where $x$ and $y$ are integers in two different ways.	3
8.	If the HCF of 408 and 1032 is expressible in the form $1032m - 408 \times 5$ , find $m$ .	3
9.	Find the greatest number that will divide 445 , 572 and 699 leaving the remainders 4 , 5 and 6 respectively.	4
10.	105 goats , 140 donkeys and 175 cows have to be taken across a river. There is only one boat which will have to make many trips in order to do so. The lazy boatman has his own conditions for transporting them. He insists that he will take the same number of animals in every trip and they have to be of same kind. He will naturally like to take the largest possible number each time. Find how many animals went in each trip?	3