CLASS – X

MATHEMATICS – REAL NUMBERS

1. Let a, b, c, d be positive rationals. Such that $a+\sqrt{b}=c+\sqrt{d}$ then prove that either $a=c$ and $b=d$ or b and d are squares of rationals.

2. Express the g.c.d of 48 and 18 as a linear combination.

3. If $\sqrt{ab}$ be an irrational number, prove that $\sqrt{a}+\sqrt{b}$ is an irrational.

4. Find the H.C.F. of 196 and 38220 using Euclid's division.

5. Show that one and only out of $n, n+2, n+4$ is divisible by 3, where n is any positive integer.

6. If p is prime, prove that $\sqrt{p}$ is irrational.

7. Find HCF of 506 and 1155 and express as a linear combination.

8. Express 7429 as a product of its prime factors.

9. Find the HCF and LCM of 90 and 144 by the prime factorization method.

10. Explain why $7\times11\times13+13$ and $7\times6\times5\times4\times3\times2\times1+5$ are composite numbers.

11. Find the smallest number which when increased by 17 is exact by divisible by both 520 and 468.

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

13. Prove that $3+2\sqrt{5}$ is not rational.

14. Without actually performing division state whether $\frac{125}{441}$ is terminating or not.

15. 6 retired teachers, 8 retired doctors and 10 retired defence officers are willing to render their services to a village. Each of doctor, teacher and defence officer serves equal number of different

16. persons in that village. Find least number of persons served by each.

NOTE-

PLEASE SOLVE THIS WORKSHEET IN MATHS ASSIGNMENT NOTEBOOK ALONGWITH CHEPTER 14 & 15

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