

## Material for Test # 1

- I Define and give example for
  - a) Prime numbers, composite numbers
  - b) Relatively prime numbers
  - c) Twin Primes
  - d) Perfect, abundant and deficient numbers
  - e) Proper divisors of a number
  - f) Lowest common multiple of a pair of numbers (L.C.M.)
  - g) Greatest common divisor of a pair of numbers (G.C.D.).
  - h) Pythagorean triples and their geometric interpretation.
  
- II State and give an example for
  - a) The fundamental theorem of Arithmetic
  - b) The division algorithm
  - c) Goldbach's conjecture
  - d) Some unsolved problems
  
- III From Readings
  - a) Names of Mathematicians and some items of interest about them from readings
  - b) Be able to organize some names and events chronologically.
  
- IV Simple problems from homework, little quizzes
  - a) Show square roots not necessarily rational
  - b) Proof that number of primes is infinite
  - c) Find L.C.M for a pair of numbers
  - d) Find G.C.D for a pair of numbers (Euclidean Algorithm)