Q1. $\sqrt{2} + \sqrt{3}$ is:
a) Rational number
b) Irrational number
c) Prime number
d) Composite number

Q2. If 7 divides a^2 then:
a) 7 divides a
b) 7 divides $\sqrt{a}$
c) a divides 7
d) None

Q3. In the formula $\log_a xy = \log_a x + \log_a y$, which of the following is true?
a) $x>0$, $y>0$, $a=1$
b) $x<0$, $y<0$, $a=1$
c) $a>0$, $y>0$, $x=1$
d) $x>1$, $y>0$, $a \neq 1$

Q4. If n is a prime number, then $\sqrt{n}$ is:
a) Prime number
b) Composite number
c) Rational number
d) Irrational number

Q5. The value of $\log_{625} 5$ is:
a) 1/2
b) 1/4
c) 1/3
d) ⅕

Q6. If A = {1, 2, 3, 4, 5} and B = {4, 5, 6, 7}, then A-B is:
a) {1,2,3}
b) {3,4,5}
c) {5,6,7}
d) {2,3,4}

Q7. The sum of first 100 natural numbers is:
a) 2250
b) 5100
c) 5000
d) 5050

Q8. If the roots of the quadratic equation $px^2+qx+r = 0$ are equal, then q^2 is:
a) 2pr

b) 3pr
c) 4pr
d) 8pr

Q9. If ax+b = 0, then x= :
a) -a
b) a
c) b/a
d) -b/a

Q10. The points of intersection of the lines 2x+3y-5 = 0 and 3x-4y+1 = 0 lies in which quadrant:
a) III
b) IV
c) II
d) I