BCM SCHOOL, BASANT AVENUE, DUGRI ROAD, LUDHIANA
CLASS -X (MATHEMATICS)
Assignment 1(Real Numbers & Polynomials)

1.	The Largest number which divides 70 and 125 leaving remainders 5 and 8 respectively is: (a)13 (b) 65 (c) 875 (d) 1750
2.	If the zeroes of the quadratic polynomial $x^2 + (a + 1) x + b$ are 2 and -3, then (a) a = -7, b = -1 (b) a = 5, b = -1 (c) a = 2, b = -6 (d) a – 0, b = -6
3.	If one zero of the quadratic polynomial $x^2 + 3x + b$ is 2, then the value of b is (a) 10 (b) -8 (c) 9 (d) -10

4.	Assertion: If the product of two numbers is 5780 and there HCF is 17 then their LCM is 340.
	 Reason: HCF is always a factor of LCM.
	     (A) Both assertion and reason are true and reason is the correct explanation of assertion.
	     (B) Both assertion and reason are true and reason is not the correct explanation of assertion.
	     (C) Assertion is true but the reason is false.
	     (D) Assertion is false but the reason is true

5.	Show that $5+3\sqrt{2}$ is an irrational number, given that $\sqrt{2}$ is an irrational number.
6.	If (x+a) is a factor of two polynomials x^2+px+q and x^2+mx+n, then prove that : a=n- q/m-p
7.	Quadratic polynomial $2x^2 -3x +1$ has zeroes α and β . Now form a quadratic polynomial whose zeroes are 3α and 3β.
8.	Case study: Have you ever watched how beautifully the Diwali lightning glow one after another,few very fast and others slower. On Diwali, Shreya decorates her house with three types of lights. The three lights glow after an interval of 12, 18 and 20 seconds respectively. The lights start glowing together at the same time. Based on the above information answer the following question: (a)To find the time after which the lights will glow together again we need to find out LCM of the numbers or HCF of the numbers? (b) After how many seconds the light will glow together again. (c) Find the HCF of 12 ,18 and 20. (d) Find HCF of 12 and 20 and hence find LCM of 12 and 20