BCM SCHOOL, BASANT AVENUE, LUDHIANA **OCTOBER ASSIGNMENT** CLASS: VIII (MATHEMATICS) TOPICS: LINEAR EQUATIONS IN ONE VARIABLE, EXPONENTS AND POWERS SECTION A (MULTIPLE CHOICE QUESTIONS) The sum of two numbers which are in the ratio 2:5 is 21. The numbers are Q.1 a) 8,13 b) 7, 14 c) 6, 15 d) 12, 9 If 8 is added to 4 times a number, the result is two less than 5 times the number. Q.2 The number is a) 15 b) 10 c) 16 d) 20 Q.3 The value of x for the expression $(\frac{7}{9})^{-4}$ x $(\frac{7}{9})^{3x} = (\frac{9}{7})^{-5}$ is a) 3 b) -2 c) -3d) 1 **SECTION B (2 MARKS QUESTIONS)** The diameter of a wire in a computer chip is 0.00003 is m. and if 250 such wires are Q.4 packed together in a cylinder .Express the diameter of the cylinder in standard form. Q.5 The difference between the squares of two consecutive numbers is 15. Find the numbers. **SECTION C (3 MARKS QUESTIONS) Q.6** Solve: $\frac{17-3x}{5} - \frac{4x+2}{3} = 5 - 6x + \frac{7x+14}{3}$ Find the value of x, if $\left(\frac{11}{9}\right)^3 \times \left(\frac{11}{9}\right)^{-2} \times \left(\frac{11}{9}\right)^5 = \left(\frac{11}{9}\right)^{x-1}$ Q.7 SECTION D (5 MARKS QUESTIONS) Q.8 Simplify: $8^{-2} \times 10^{-4}$ $2^{-5} \times 5^{-4} \times 2^{-2}$ Baichung's father is 26 years younger than Baichung's grandfather and 29 years older Q.9 than Baichung. The sum of the ages of all the three is 135 years. What is the age of each one of them? **SECTION E (CASE STUDY)**

- Q.10 Students of a school prepared some articles on the occasion of Deepawali to help the poor people. They made Diyas, Candles, Rangoli Art Designs, Flower Decoration Kits and Homemade sweets and distributed in a slum area. They collected total money of Rs. 1568. They got 1 rupee coins, 2 rupee coins, 5 rupee coins and 10 rupee coins. The number of 10 rupee coins are half of 1 rupee coins, 5 rupee coins are one-third of 1 rupee coins and 2 rupee coins are one-fourth of 1 rupee coins. Total number of coins are 400, the total amount of 2 rupee coins is invested on making diyas and amount of 10 rupee coins invested on making sweets. According to the given information give the answer of the following questions: a) How many number of 1 rupee coins they collected?
 - b) How many number of 5 rupee coins they collected?
 - c) How many number of 10 rupee coins they collected?