THE VILLAGE
INTERNATIONAL SCHOOL

Date: 15/07/2022	MONTHLY TEST -2 **(2022-23)**	Max. Marks: **20**
Grade : **X**	MATHEMATICS(041)	Time : 1 hour

General Instructions

- This question paper consists of three sections, **A, B** and **C.**
- Section A comprises of **4** questions of **1** mark each.
- Section B comprises of **4** questions of **2** marks each.
- Section C comprises of **2** questions of **4** marks each.
- All questions are compulsory.

SI	**SECTION A**	**MARKS**
1	If 3 chairs and1 table costs Rs. 1500 and 6 chairs and 1 table costs Rs. 2400. Form linear equations to represent these situations.	1
2	For what value of k, the pair of linear equations 3x+y = 3 and 6x+ky = 8 does not have a solution?	1
3	Find the roots of the equation , $x^2 + 7x + 10 = 0$	1
4	Write the number of solutions of the following pair of linear equations x+2y-8= 0 , 2x+4y=16.	1
	SECTION B	
5	Solve for a and b: 12a+13b=38 ; 4a+11b=17	2
6	The difference between two numbers is 26 and one number is three times the other. Find them.	2
7	Find two numbers whose sum is 27 and product is 182.	2
8	The coach of a cricket team buys 7 bats and 6 balls for Rs.3800. Later, she buys 3 bats and 5 balls for Rs.1750. Find the cost of each bat and each balls.	2
	SECTION C	
9	The altitude of a right triangle is 7 cm less than its base. If the hypotenuse is 13 cm, find the other two sides.	4

10	There are two cell phone companies that offer different packages. Company A charges a monthly service fee of Rs. 40 plus Rs. 0.5 per minute talk time. Company B charges a monthly service fee of Rs. 30 plus Rs.1 per minute talk time. Then answer the following. a) A linear equation that models the package offered by the company A is. $a)\ y = 0.5x + 40 \quad b)\ y = 40x + 0.5 \quad c)\ y = x + 40.5 \quad d)\ y = 40x + 30y$ b) A linear equation that models the package offered by the company B is. $a)\ y = 30x + 1 \quad b)\ y = x + 30 \quad c)\ y = x - 30 \quad d)\ y = x + 40$ c) How many minutes of talk time would yield equal monthly statements from both companies. $a)\ 10\ minutes \quad b)\ 30\ minutes \quad c)\ 40\ minutes \quad d)\ 20\ minutes$ d) A person look the package of company A and used 400 minutes of talk time. He spent : $a)\ Rs.\ 140 \quad b)\ Rs.\ 240 \quad c)\ Rs.\ 440 \quad d)\ Rs.\ 360$	1 1 1 1