SuperNovaSchool
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ENTRY TEST

Academic Session 2019-20

GRADE VII

MATHEMATICS

Name: _____

Date: _____

Time Allowed: 45 minutes

Total Marks	Marks Obtained	Percentage
30		

Remarks:

_____

_____

_____

Q1. Express the following as a product of prime factors using index notation. **(3)**

    a.   729

    b.   175

Q2. Find the H.C.F of the following. (3)

a) 315 and 720	b) $2^3 \times 3^2 \times 5 \times 7 \ and 2^2 \times 3^4 \times 7^2$

Q3. a) Find the following. **(3)**

a) Positive square root of 625	b) Cube root of 2744

Q4 a). Express the following correct to the number of decimal places indicated within the bracket.

i. 0.060986 (3 decimal places) _____ (1)

ii. 3.7585(2 significant figures) _____ (1)

b). Express the following fraction as decimals correct to 2 decimal places.

$$\frac{7}{19}$$

Q5. Simplify the following.

    i. $7x - [3x - \{4x - 2(x + 3y)\}]$ (2)

    ii. $\dfrac{x+y}{2} - \dfrac{x+5y}{4} + \dfrac{5x-4y}{8}$ (3)

Q6. Factorize the following.

    i. $2h(3x - 2) - 6k(2 - 3x)$ (1.5)

ii. $3xh + 7hy - 6kx - 14ky$ (1.5)

Q7. Find two consecutive even numbers such that the sum of the larger and three times the smaller number is 42.   **(3)**

Q8. a) Express the ratio 35 seconds and 2 minutes as a single fraction in its lowest term.   **(1)**

b) **A rectangular piece of land measures 4.5 km long and 2.5 km wide. Calculate the ratio of:** **(2)**

i. Its width to its length.

ii. Its length to its perimeter.

Q9. Find the area and perimeter of the following figures. **(3)**

20 cm

14cm