APPENDIX - C

FINAL VERSION OF THE ACHIEVEMENT TEST

NAME OF THE STUDENT _____

NAME OF THE SCHOOL _____

DATE _____

MATHEMATICS ACHIEVEMENT TEST

I. SIMPLIFY

1.a) $\left(\frac{4}{5}\right)^2 \quad x \left(\frac{4}{5}\right)^3$ Ans: _____

1.b) $4^6 \div 4^2$

1.c) $\left(\frac{2}{7}\right)^3 \quad x \left(\frac{2}{7}\right)^4$ Ans: _____

II. WRITE THE RECIPROCALS OF THE FOLLOWING:

2.a) (-4)

2.b) $\frac{3}{4}$

2.c) $\left(\frac{-6}{5}\right)$

III. SUBTRACT

3.a) $\frac{1}{4} - \left(\frac{-1}{3}\right) = \frac{1}{4} +$ _____

3.b) $\frac{4}{9} - \frac{2}{9} + \frac{1}{9} =$ _____

IV. WRITE IN THE STANDARD FORM

4) $\left(\frac{-16}{56}\right)$ Ans: _____

V. ADD THE FOLLOWING:

5.a) $\frac{4}{9} + \left(\frac{-5}{9}\right)$ Ans: _____

5.b) $\frac{3}{7} + \frac{1}{7}$ Ans: _____

5.c) $\frac{3}{8} + \left(\frac{-5}{12}\right)$ Ans: _____

5.d) $\frac{6}{8} + \frac{4}{10}$ Ans: _____

5.e) $\frac{5}{9} + 0$ Ans: _____

VI. FILL IN THE BLANKS:

6.a) $\left(\frac{2}{3}\right)^{-5} = \frac{1}{\left(\frac{2}{3}\right)^{\square}}$

6.b) $\left(\frac{7^5 \times 7^6}{7^3}\right) = 7^{\square}$

6.c) $\left(\frac{4}{7}\right)^{-3} \div \left(\frac{4}{7}\right)^{-2} = \left(\frac{4}{7}\right)^{\square}$

6.d) $\left(\left(\frac{-3}{5}\right)^{-2}\right)^{-4} = \left(\frac{-3}{5}\right)^{\square}$

6.e) $\left(\left(\frac{-4}{9}\right) \times \left(\frac{-5}{7}\right)\right)^{-2}$

$= \left(\frac{-4}{9}\right)^{\square} \times \left(\frac{-5}{7}\right)^{\square}$

6.f) $\left(\frac{4}{3}\right)^{\square} = \frac{4^2}{3^2}$

6.g) $7^3 \times 7^2 = 7^{\square}$

6.h) $\left(\frac{-3}{8}\right)^{\square} \times \left(\frac{-3}{8}\right)^{\square} = \left(\frac{-3}{8}\right)^{12}$

6.i) $\left(\frac{2}{3}\right)^{5} \times \left(\frac{2}{3}\right)^{6} \div \left(\frac{2}{3}\right)^{4} = \left(\frac{2}{3}\right)^{\square}$

VII. WHICH IS THE GREATER OF THE TWO FRACTIONS GIVEN BELOW:

7.a $\frac{4}{3}$ or $\frac{3}{4}$ Ans: _____

7.a $\frac{-2}{3}$ or $\frac{-3}{2}$ Ans: _____

VIII. SIMPLIFY

8.a. $2a^2 \times 3ab$ Ans: _____

8.b. $\frac{7a^2b}{2} \times \frac{3ab^2}{7}$ Ans: _____

IX. DIVIDE THE FOLLOWING

9.a. $\frac{3}{11} \div \frac{3}{7}$ Ans: _____

9.b. $\left(\frac{-9}{13}\right) \div \left(\frac{-6}{11}\right)$ Ans: _____

9.c. $\frac{3}{8} \div \frac{3}{8}$ Ans: _____

9.d. $\left(\frac{2}{4} + \frac{3}{5}\right) \div \frac{7}{20}$ Ans: _____

X. FIND THE PRODUCT OF THE FOLLOWING

10.a $(X + 3)\ (X - 2)$ Ans: _____

10.b. $(8x - 3)\ 2x$ Ans: _____

10.c. $(-3x^2)\ (xy^2z - yz^2)$ Ans: _____

XI. EXPAND THE FOLLOWING

11.a. $(3x + 4y)^2$ Ans: _____

11.b. $\left(\frac{p}{4} - \frac{q}{5}\right)^2$ Ans: _____

XII. FACTORISE THE FOLLOWING

12.a. $X^2 + 3XY - X - 3Y$ Ans: _____

12.b. $4a^2 + 20a + 25$ Ans: _____

12.c. $X^4 + X^2Y^2 + Y^4$ Ans: _____

12.d. $9X^2 - 64Y^2$ Ans: _____

12.e. $25X^4 + 9X^2 + 1$ Ans: _____

XIII. SOLVE THE FOLLOWING

13.a. $2X - 7 = 5$ Ans: _____

13.b. $\frac{X+1}{3} = \frac{2X-1}{5}$ Ans: _____

13.c. $2(X + 5) = 5(X - 2)$ Ans: _____

XIV. SOLVE THE FOLLOWING WORD PROBLEMS

14.a. A Father is three times as old as his son. Fifteen years hence the father will be twice as old as his son will be then. Find their Present ages.

Ans: _____

14.b. The tens place digit of a two digit number is three times the one's place digit. If 54 is subtracted from the given number the result is a number with the digits of the original number in reversed. Find the number.

Ans: _____

XV. Find the cost price (C.P.) if selling price (S.P.) is Rs. 141 and loss is 6%.

Ans: _____

XVI. What amount lent out for 3% per annum would give simple interest of Rs. 36, after 3 years ?

Ans: _____