

NAME \_\_\_\_\_ INDEX NUMBER \_\_\_\_\_

SCHOOL \_\_\_\_\_ DATE \_\_\_\_\_

## EVALUATION OF NUMERIC EXPRESSION

| <i>KCSE 1989 – 2012 Form 1 Mathematics</i><br><i>Answer all the questions</i> |  | Working space |
|---|--|---------------|
| 1.  | <b>1990 Q1 P1</b><br><br>Without using tables evaluate (4 marks)<br>$\sqrt{\frac{29.16}{0.025 \times 4.8}}$                    |               |
| 2.  | <b>1990 Q3 P1</b><br><br>Without using tables evaluate (4 marks)<br>$\sqrt{\frac{153 \times 0.18}{0.68 \times 0.32}}$          |               |
| 3.  | <b>1992 Q 1 P1</b><br><br>Without using mathematical tables evaluate (3 marks)<br>$\frac{0.18 \times 4}{\sqrt{3.24 \times 4}}$ | Working space |

|    |   |                      |
|----|---|----------------------|
| 4. | <p><b>1995 Q 1 P1</b></p> <p>Without using logarithms tables evaluate (3 marks)</p> $\sqrt{\frac{384.16 \times 0.0625}{96.04}}$             |                      |
| 5. | <p><b>1996 Q 1 P2</b></p> <p>Evaluate without using mathematical tables</p> $\sqrt{\frac{0.0625 \times 2.56}{0.25 \times 0.08 \times 0.5}}$ |                      |
| 6. | <p><b>1997 Q1 P2</b></p> <p>Evaluate without using mathematical tables</p> $\frac{1.9 \times 0.032}{20 \times 0.0038}$                      | <p>Working space</p> |

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|-----|--|----------------------|
| 7.  | <p><b>1998 Q 1 P1</b></p> <p>Evaluate without using mathematical tables</p> $1000 \left( \sqrt{\frac{0.0128}{200}} \right)$  |                      |
| 8.  | <p><b>2004 Q 1 P1</b></p> <p>Without using logarithm tables evaluate</p> $\frac{0.015 + 0.45 \div 1.5}{4.9 \times 0.2 + 0.07}$   |                      |
| 9.  | <p><b>2005 Q 2 P1</b></p> <p>Express the numbers 1470 and 7056, each as a product of its prime factors</p> <p>Hence evaluate <math>\frac{1470^2}{\sqrt{7056}}</math> Leaving the answer in prime factor form (3 marks)</p> |                      |
| 10. | <p><b>2006 Q 1 P1</b></p> <p>Without using mathematical tables or a calculator evaluate (4 marks)</p> $\frac{3\sqrt{675 \times 135}}{\sqrt{2025}}$   | <p>Working space</p> |

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| 11. | <p><b>2007 Q 1 P1</b><br/> Evaluate without using mathematical tables or a calculator</p> $\frac{0.0084 \times 1.23 \times 3.5}{2.87 \times 0.056}$ <p>Expressing the answer as a fraction in its simplest form<br/> (2 marks)</p> |  |
| 12. | <p><b>2009 Q 1 P1</b><br/> Without using mathematical tables or calculators, evaluate<br/> (3 marks)</p> $\frac{\sqrt{5184}}{6 \times 18 \div 9 + (5 - 3)}$  |  |
| 13. | <p><b>2012 Q12 P1</b><br/> Without using mathematical tables or a calculator, solve the equation <math>2 \log_{10} x - 3 \log_{10} 2 + \log_{10} 32 = 2</math><br/> (3 marks)</p>  |  |