

ST. MARGARET COLLEGE MAKERERE

BEGINNING OF TERM II EXAMINATIONS 2012

S.1 MATHEMATICS

Time : 1 ½ hrs

INSTRUCTION: Attempt all questions.

1. Find the HCF and LCM of

i) 6, 12, 24

ii) 24, 30, 48

2. Express the following as a product of its prime factors

i) 100

ii) 108

3. Use a number line to workout:

i) $(+3) - (+5)$ ii) $(-6) + (-8)$

4. Convert the following to the required base

i) 1234_{five} _____ base ten

ii) 1234_{six} _____ base four

5.a) List down the first 20 natural numbers

b) List down the ascending order (from small to biggest)

i) -2, 0, -3, 11, -4

ii) -1, -5, -2, 0, 7

6.a) Change to percentage

i) $\frac{21}{2}$ ii) $\frac{4}{5}$ iii) $\frac{31}{4}$

b). Reduce to the lowest terms

i) $\frac{42}{84}$ ii) $\frac{12}{52}$

7. Simplify: $\frac{2\frac{1}{2} - 1\frac{1}{4}}{10\frac{1}{2} \div 6}$

8. On the same graph paper draw pair of axes and plot the following points on it A(0,0), B(2,2) , C(6,2) and D(4,0)

Join these points in order and name the figure formed.

9. Given P= (a set of vowels)

Q = (a set of alphabetic letters between a and l)

Find i) $n(P)$ ii) $n(Q)$ iii) $n(P \cap Q)$

10. Fill in the blank spaces.

$$\text{i) } \frac{1}{2} = \frac{\boxed{}}{4} = \frac{\boxed{}}{8} = \frac{5}{\boxed{}}$$

$$\text{ii) } \frac{1}{4} = \frac{\boxed{}}{16} = \frac{25}{\boxed{}}$$

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