UNIVERSITY OF NAMIBIA

SUBJECT	MATURE AGE ENTRY TEST
SUBJECT AREA	NUMERACY(NON-SCIENCE)
DATE	02 August 2019
DURATION	2 HOURS MARKS:100

This question paper consists of 6 pages including the cover page

Instructions

- Show your calculations.
- Calculators are allowed
- Round answers to one Decimal Place where Needed
- Answer all questions in the given examination answer book

Multiple Choice Questions

1. Which of the following fractions is an equivalent to $\frac{1}{4}$? [2]

   (a) 10/14

   (b) 6/42

   (c) 8/32

   (d) 3/36

2. Identify 65 as a fraction of 104 in its simplest form. [3]

   (a) 3/5

   (b) 5/8

   (c) 7/9

   (d) 1/2

3. The sum of 1/4 and 2/3 is : [2]

   (a) 1 and 1/12

   (b) 2/12

   (c) 3/7

   (d) 11/12

4. 5/6 minus 3/10 leaves: [2]

   (a) 17/30

   (b) 8/15

   (c) 1/4

   (d) 1/2

5. Which of the following is not a common factor of 12 and 18? [2]

   (a) 3

   (b) 2

   (c) 9

(d) 6

6. Solve the equation for x

(a) $\frac{(x+1)}{2} - 1 = \frac{1}{4}$ [3]

i. 2/3

ii. 5/4

iii. 5/2

iv. 3/2

(b) $2(x-1)+3=9$ [3]

i. 2

ii. 5

iii. 4

iv. 3

(c) $x+5x=12$ [3]

i. 2/1

ii. 3

iii. 1/2

iv. none of the above

7. Indicate the pattern of numbers below as either even, prime or odd ?

(a) 1 3 5 7 9 11 [2]

i. even

ii. odd

iii. prime

iv. neither

(b) 2 4 6 8 10 12 [2]

i. even

ii. odd

iii. prime

iv. neither

(c) 2 3 5 7 11 13 17 19 [2]

i. even

ii. odd

iii. prime

iv. neither

8. Take $y = w + x$

(a) Could $x = 3, y = 7; w = 5$ make the equation true? [1]

i. True

ii. False

(b) Could they take values $5, 9, 4$? [2]

i. True

ii. False

(c) If $x = 1$ and $w = 5$ what value of y would be suitable? [2]

i. 3

ii. 6

iii. 9

(d) if $x = 1$ and $y = 7$ what is a suitable value for w [2]

i. 3

ii. 6

iii. 9

Structured Questions

1. Using the formula $y = 2x + 3$, find the value of y if

   (a) $x = 3$ [2]

   (b) $x = 7$ [2]

   (c) $x = 0$ [2]

2. Consider a class of 35 learners,

   (a) 17 learners have school uniform, what percentage of learners do not have school uniform? [3]

   (b) 57.14 % of these students got a grade B in Mathematics. what is the number of students who got a grade B symbol in mathematics? round your answer to the nearest integer [3]

3. Convert 15 months into years and months. [3]

4. The British council donated £825.50 to be equally divided among three charities.

   (a) How much money will each charity receive from the group? [2]

   (b) given that £1 = *N*$19.06, convert £200 British Pounds to Namibian Dollars (N$) [3]

   (c) did each charity receive amount less than N$ 5000? (Namibia Dollars) [2]

5. A teacher travels from Rundu to attend a workshop in Windhoek . The journey is 715 kilometers each way.Travel expenses may be claimed at N$ 2.65 per kilo meter.

   (a) How much is the teacher entitled to claim for travel expenses? [3]

   (b) As an approximation 8 kilometers is equal to 5 miles, using this approximation how long is the journey from Rundu to Windhoek in miles? /hfill[3]

6. For a practical task, a primary teacher needs 25 millilitres of liquid for each pupil. There are 28 pupils in the class.

   (a) How many millilitres of liquid are needed? [2]

   (b) convert 25ml to litres [2]

7. A lesson begins at 11:40. The teacher prepares a 10-minutes introduction followed by a 15-minutes video clip and then a 25-minutes activity.At what time does the activity end? [3]

8. Evaluate the following fractions

   (a) $\frac{2}{3} \div \frac{4}{3}$ [1]

   (b) $\frac{4}{3} \div \frac{2}{3}$ [1]

   (c) $1\frac{1}{2} \div 2\frac{1}{4}$ [3]

   (d) $-4 \div (-\frac{4}{3})$ [1]

   (e) $\frac{(1\frac{1}{2}+2\frac{1}{4})}{1\frac{1}{2}\times 1\frac{1}{2}} - \frac{2}{3}$ [4]

9. List the first 5 square numbers [5]

10. Complete the following conversions between fractions, decimals and percentages. Express all fractions in their lowest form. [20 marks]

Fraction	Decimal	Percentage
$\frac{3}{4}$	(a).....	(b).....
(c)....	0.2	(d)....
(f)....	(g)....	60%
(h)....	0.375	(i)....
$\frac{1}{4}$	(j)....	(k)....