

UNIVERSITY OF NAMIBIA

SUBJECT	MATURE AGE ENTRY TEST	
SUBJECT AREA	NUMERACY(NON-SCIENCE)	
DATE	03 August 2019	
DURATION	2 HOURS	MARKS:100

This question paper consists of 5 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. Is 23 a prime number ? [2]
 - (a) Yes
 - (b) No
2. What is the value of 2^{10} [2]
 - (a) 20
 - (b) 1024
 - (c) 512
 - (d) 2048
3. Which two values are both square and cube numbers? (circle 2 options) [2]
 - (a) 1
 - (b) 8
 - (c) 27
 - (d) 64
4. What is 1.2^2 ? [2]
 - (a) 2.4
 - (b) 1
 - (c) 1.3
 - (d) 1.44
5. What can the formula $\pi \times r \times r$ be used to calculate? [2]
 - (a) The volume of a sphere
 - (b) The radius of a circle
 - (c) The Area of a circle
 - (d) Circumference of a circle
6. Which of the following is true of a multiple of 6? [3]

- (a) Last digit is even
 - (b) Sum of digits is a multiple of 9
 - (c) Sum of digits is a multiple of 3
 - (d) Last digit is odd
7. If 75 % of a class of 32 children cannot do long division, how many children still need to master this method? [4]
- (a) 7
 - (b) 21
 - (c) 24
 - (d) 14
8. Convert 44% into a fraction and express in its lowest form [2]
- (a) 44/100
 - (b) 22/50
 - (c) 11/25
 - (d) 4/10
9. Convert $\frac{3}{8}$ into a percentage [3]
- (a) 57.1 %
 - (b) 16.6 %
 - (c) 37.5 %
 - (d) 33.3 %
10. In algebraic form the sum of x plus three times y is: [2]
- (a) $\frac{x}{3y}$
 - (b) $x + y + 3$
 - (c) $x(3y)$
 - (d) $x + 3y$
11. Which number is not a factor of 25? [2]

- (a) 5
- (b) 3
- (c) 25
- (d) 1

Structured Questions

1. Give a list of prime numbers that are less than 16 ? [6]
2. What do you get when you multiply $\frac{2}{5}$ by $\frac{5}{6}$ [2]
3. How many factors does 20 have ? [3]
4. What is the highest factor that both 16 and 22 have in common? [3]
5. Consider the equation $x + y = 12$
 - (a) find the value of y when $x = 2$ [3]
 - (b) find the value of x when $y = 3$ [3]
 - (c) find the value of y when $x = 12$ [3]
6. Solve the equation for x
 - (a) $3(x + 1) + 2 = 5$ [3]
 - (b) $2(x - 1) + 3 = 9$ [3]
 - (c) $2x - 7 = 5x - 9$ [3]
7. if $a = 1, b = 2, c = -3$, find the values of:
 - (a) $3a - b - c$ [3]
 - (b) $\frac{5bc}{a}$ [3]
8. David left school to Tsumeb on a bus at 9: 15. The journey to and from Tsumeb takes approximately 1 hour and 40 minutes each way. They spent 3 hours in the town of Tsumeb. What time did David return to school? Give your answer using the 24 hour clock. [4]
9. What is five hundred and twenty-six multiplied by zero point zero one? [2]

10. Grade 7 learners were baking cakes and biscuits and then selling them to their parents. Money raised from this initiative was given to a charity. The learners sold fifteen slices of cake at £1.50 per slice and eighteen biscuits at £1.00 each.

(a) How much money was collected for the charity by the Grade7 learners? [5]

(b) given that £1 = N\$19.06, convert £5 British Pounds to Namibian Dollars (N\$) [3]

(c) What is the cost of one slice of cake in Namibian Dollars (N\$) [3]

11. In a school there are 18 classes with an average of 25 learners pupils in each of them. How many learners are in the school? [3]

12. Evaluate the following fractions [3]

(a) $\frac{(1\frac{1}{2} + 2\frac{1}{4})}{1\frac{1}{2} \times 1\frac{1}{2}} - \frac{2}{3}$

13. Kevin bought, bread, butter and jam at a pick and pay glossary store. He received the cash slip below for the items he purchased

Pick and Pay		
Brown Bread	4 × N\$6.50	N\$26.00
Flora Butter	2 × N\$9.80	N\$19.60
Apricot Jam	1 × N\$14.20	N\$14.20
Sub total		N\$52.00
Tax included		N\$ 7.80
Total		N\$ 59.80
Cash		N\$60.00
Change		N\$ 0.20

(a) How many items did he buy in total? [2]

(b) What was the price of one loaf of bread? [2]

(c) Kevin paid for the items purchased with two notes. Which notes did he pay with? [4]

(d) Calculate the percentage of tax included in the prices. [4]

(e) Calculate what the cost would have been for all items if he had bought 7 brown breads instead of 4 brown breads. [5]