Birmingham City University
Faculty of Health, Education and Life Sciences

Diploma Higher Education Operating Department Practice

Sample Pre-entry Numeracy Assessment - ANSWERS

Time allowed to complete this paper is 30 Minutes. There are a possible 30 marks

This paper consists of 6 questions, although some questions have more than one part. The questions are designed to test your knowledge of:

- addition
- subtraction
- division and multiplication
- use of decimals
- fractions
- percentages

You are not permitted to use a calculator and all working out must be shown on the paper.

To achieve a pass you will need to achieve 20 marks out of a possible 30.

Good luck!

1. The following figures have been represented as a fraction, decimal and percentage (%). In each case one figure does not equal the other two. Review the figures below and circle the one that does not equal the other two.

   1/ 5   0.2   **15%**

   1/ 15   0.05   5%

   5 / 4   **1.20**   125%

   (3 Marks)

2. Work out exactly:

   225 ÷ 9 =   **25**
   56 ÷ 7 =   **8**
   65 ÷ 13 =   **5**
   105 ÷ 15 =   **7**
   770 ÷ 22 =   **35**

   (5 marks)

3. Circle all the fractions that equate to 40/50.

   12/16   **4/5**   **20/25**   75/95   **8/10**   **80/100**

   (4 Marks)

4. BMI = (Weight in Kilograms)
        Height in Metres²

   Paul weighs 150kgs and is 180cm tall. He wants to know if he is overweight.

   (6 Marks)

   180cm = **1.8M**

        a. x 1.8 = **3.24²**

   150 ÷ 3.24 = **46.3**

   Therefore BMI = **46.3**

5. Convert the following:

    43 mg to G = **0.043G**

    1.4 G to mg = **1,400mg**

    1.6mg to mcg = **1600mcg**

    89mcg to mg = **0.089mg**

    (4 Marks)

6. Work out the following:

    43 x 80 = **3440**

    189 x 125 = **23625**

    496 x 228 = **113088**

    (3 Marks)

7. In theatre the patient blood loss is calculated by weighing the blood soaked swabs and subtracting the weight of the dry swab. Each gram is considered to be equivalent to 1ml of blood. Calculate the blood loss for the patient below.

Wet Swab Weight	Dry Swab Weight	Blood loss
68g	20g	*48g = 48mls*
22g	15g	*7g =7mls*
79g	33g	*46g = 46mls*
97g	47g	*50g = 50mls*
Total Blood loss		*151mls*

(5 Marks)