As part of the selection criteria for the Diploma Higher Education Operating Department Practice, candidates are required to successfully complete literacy and numeracy tests. Try our sample questions, would you pass?

Birmingham City University
Faculty of Health
Diploma Higher Education Operating Department Practice Pre-entry Assessment.
Numeracy and Literacy Assessment – Sample Test Paper

This provides you with a sample of questions designed to test your basic numeracy and literacy skills as part of the recruitment and selection process for the Diploma Higher Education Operating Department Practice programme offered here at Birmingham City University.

On your interview day a similar test will be taken under exam conditions.

Good luck

Regards

Birmingham City University Operating Department Practice Admissions Tutor.

Sample test

Time allowed to complete this paper is 1 hour and consists of two sections:

Section A: Numeracy (30 marks)

Section B: Literacy (30 marks)

Section A consists of 10 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 and
- percentages

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

Section B consists of 2 parts, part one asks you to read a supplied paper and answer 5 questions about that paper. Part two asks you to write a personal review. These questions are designed to enable you to demonstrate:

- Comprehension
- Spelling
- Punctuation and
- Grammar

To achieve a pass you will need to achieve 20 marks out of a possible 30 in both section A and in section B.

Good luck!

Sample questions

Question 1: (5 Marks)

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.

⅝	6.25	62.5%
½	0.5	48%
¾	0.062	6.2%

Question 2: (2 Marks)

Work out exactly.

144 ÷ 6 =

270 ÷ 9 =

Question 3: (1 Mark)

Write one hundred thousand in figures.

Question 4: (2 Marks)

Circle all the fractions that equate to ⅓

2⁄6 2⁄9 3⁄9 3⁄18 4⁄12 5⁄15

Question 5: (1 Mark)

If ¾ of people on a bus are men what fraction are women?

Question 6: (2 Marks)

Find the value of

5c + 7b =

When c = 6 and b = 3

Question 7: (5 Marks)

The graph shows the number of winners in a magazine crossword competition.



a) How many people won £3?
b) How many people won less than £4?
c) What was the total amount of prize money paid?

Question 8: (4 Marks)

a) How many milligrams (mg) in 4 grams (g)?
b) 500µm (micrograms) = ? mg

Question 9: (3 Marks)

Work out the following:

a) 15 x 41 =
b) 159 x 38 =
c) 489 x 551 =

Question 10: (5 marks)

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
72g	25g	
29g	25g	
76g	38g	
97g	52g	
Total Blood loss		

Sample Literacy Test
During this test you are not permitted to use a dictionary. The test has been designed to test your basic literacy skills and includes the following;

- Comprehension
- Spelling
- Punctuation and
- Grammar

Part One.

Please read the following information and answer the questions that follow from the information provided.

Latex allergy is a medical term encompassing a range of allergic reactions to the proteins present in natural rubber latex. As many items contain or are made from natural rubber, including shoe soles, elastic bands, rubber gloves, condoms, baby-bottle nipples, and balloons, there are many possible routes of exposure that may trigger a reaction. Persons with latex allergies may also have allergic reactions to some fruits (see Latex-Fruit Syndrome).

Types

Natural rubber latex is known to cause Type I and Type IV allergic reactions, as well as irritant contact dermatitis.

Type I

The most serious and rare form of latex allergy, Type I hypersensitivity can cause an immediate and potentially life-threatening reaction, not unlike the severe reaction some people have to bee stings. Such reactions account for a significant proportion of perioperative anaphylactic reaction, especially in children with myelomeningocele. Type I natural rubber latex allergy is an IgE (immune) mediated reaction to proteins found in the Hevea brasiliensis tree, a type of rubber tree.

Testing for type I natural rubber latex allergy is through blood testing to determine if the patient is producing IgE antibodies to latex proteins.

Anaphylactic shock can be provoked in allergic persons by the previous use of latex in an area: latex is typically powdered to prevent sticking, latex proteins become attached to the particles of powder, and the powder becomes airborne when the

latex item is used, triggering potentially life-threatening Type I reactions when the latex-contaminated powder is inhaled by susceptible persons.

Type IV (allergic contact dermatitis)

Type IV allergy, also known as allergic contact dermatitis, involves a delayed skin rash that is similar to poison ivy with blistering and oozing of the skin (see urushiol-induced contact dermatitis). It can be diagnosed through a positive skin-prick test, although a negative test does not rule out a latex allergy.

Irritant contact dermatitis

Natural rubber latex can also cause irritant contact dermatitis: a less severe form of reaction that does not involve the immune system. Contact dermatitis causes dry, itchy, irritated areas on the skin, most often on the hands. Latex-glove induced dermatitis increases the chance of hospital-acquired infections, including blood-borne infections, being transmitted.

Those at greatest risk

Children with Spina bifida. Up to 68% will have a reaction.[8

Industrial rubber workers, exposed for long periods to high amounts of latex. About 10% have an allergic reaction.

Health care providers. Given the ubiquitous use of latex products in health care settings, management of latex allergy presents significant health organizational problems. Healthcare workers who frequently use latex gloves and other latex-containing medical supplies such as physicians, nurses, aides, dentists, dental hygienists, operating room employees, laboratory technicians, and hospital housekeeping personnel are at risk for developing latex allergy. Between about 4% to 17% of healthcare workers have a reaction, this usually presents as Irritant Contact Dermatitis, and can develop through allergic sensitivity to a status of full anaphylactic shock; with health workers losing their vocation. In the surgical setting, however, the risk of a potentially life-threatening allergic reaction by a patient has been deemed by Johns Hopkins Hospital to be sufficiently high to replace all latex surgical gloves with synthetic alternatives.

People who have had multiple surgical procedures, especially in childhood.

Estimates of latex sensitivity in the general population range from 0.8% to 8.2%.

Latex-Fruit Syndrome

Some people who have latex allergy may also have an allergic response to any of a number of plant products, usually fruits. This is known as the latex-fruit syndrome. Fruits (and seeds) involved in this syndrome include banana, pineapple, avocado, chestnut, kiwi fruit, mango, passionfruit, fig, strawberry and soy. Some but not all of these fruits contain a form of latex.

Alternatives

Synthetic rubbers such as elastane, neoprene, and artificially synthesized polyisoprene latex do not contain the proteins from the Hevea brasiliensis tree.

Products made from guayule natural rubber emulsions also do not contain the proteins from the Hevea rubber tree, and do not cause allergy in persons sensitized to Hevea proteins.

Chemical treatment to reduce the amount of antigenic proteins in Hevea latex has yielded alternative materials, such as Vytex, which reduce exposure to latex allergens while otherwise retaining the properties of natural rubber.

Some patients' sensitivity is so extreme that replacement of Latex products with products made from alternative materials may still result in a reaction if the products are manufactured in the same facility as the Latex-containing products, due to trace quantities of natural rubber latex on the non-latex products.

Latex Allergy. http://en.wikipedia.org/wiki/Latex_allergy (accessed 9th October 2013).

Question One:

What are the three types of reaction known to be caused by natural rubber latex? (3 marks)

Question Two:

Name two groups of people who are at risk of latex allergy and suggest what percentage of each group is at risk? (4 Marks)

Question Three:

Explain the term Latex-Fruit syndrome? (3 Marks)

Question 4:

Name three alternatives to natural rubber latex? (3 marks)

Question Five:

How do this information suggest that type 1 reactions can be triggered? (2 Marks)

Part Two

Write a short (maximum of 500 words) review of you last holiday. This should be written in a formal style and should offer the reader a balanced view of your holiday destination; therefore you should consider strengths and weaknesses. You should include a short introduction and concluding statements. (15 marks)