**1ο ΓΕΝΙΚΟ ΛΥΚΕΙΟ ΑΛΙΜΟΥ**

 **ΣΧΟΛΙΚΟ ΕΤΟΣ 2020-2021**

***ANIMAL RIGHTS***

NAME……………………………………………………………………………………………CLASS………………………..DATE……………..

Research agencies have ordered UK scientists to improve the way they use animals in experiments. Too often poorly designed projects – to test new medicines for strokes, cancer and other conditions – have produced meaningless results and wasted animals’ lives, the organisations have warned.

In some cases, researchers – desperate to control the costs of their work – have underestimated the number of animals needed to test a new medicine. As a result, their tiny studies have lacked the power to pinpoint biological effects in the drugs under **scrutiny**. These unreliable results mean the lives of the animals involved have been wasted, along with scientists’ time and resources. The over-use of animals in experiments has also led to unnecessary loss of their lives.

Research Councils UK – the umbrella group for the councils that fund UK research – has announced changes to its guidelines for those carrying out research using animals. Scientists will now have to show their work generates statistically **robust** data. If not, they will lose their funding.

“Therehas been an increasing awareness that some animal experiments are not sufficiently **robust**. These guidelines should therefore be welcomed, although they have taken a long time to be introduced,” said neuroscientist Malcolm Macleod of Edinburgh University.

Many of these are done to test drugs before human trials are launched. However, it takes a fairly large number of animals to reveal whether a drug is having a pharmacological effect, said Macleod.

The problem of poorly designed experiments was identified in a recent survey of scientific papers which showed details of design and statistical analysis were sometimes inadequate.

Scientists can use animals in experiments, but no more than necessary – and no fewer. It is ethically questionable to get the numbers wrong either way.

*From the guardian.com*

**Multiple-choice questions: (20 points)**

**1. Why has the writer written this article?**

a. to raise awareness b. to address researchers only c. to explain with useful facts

**2. The neuroscientist suggests that animal experiments should be more robust, that is:**

a. cruel b. reliable c. restricted

**3. What is the writer’s opinion about animal testing experiments?**

a. they should be banned b. they should respect animals’ lives c. they should be well-planned

**4.**  **What does the writer mean in the phrase “……….in the drugs under** ***scrutiny***.”

a. highest development b. pure refinement c. detailed examination

**5. The impact of unreliable results involving animals is that:**

a. scientists are desperate b. lots of animals’ lives are wasted c. scientists lose their funding

**B. Read the text below and for each gap choose the best word. There is one word you do not need.**

 **(10 points)**

|  |  |  |
| --- | --- | --- |
| A. reveal | B. pinpoint | C. underestimated |
| D. pressure | E. culminated | F. launched |

*From the guardian.com*

The problem of poorly designed studies has been under investigation for two years and 1.…………………… last week, in Research Councils UK. Many of these are done to test drugs before human trials are 2………………………… However, it takes a fairly large number of animals to 3……………………whether a drug is having a pharmacological effect, said Macleod. “In a typical £300,000 project – say to test a stroke drug – about a third of funds goes on equipment, a third on salaries and a third on animals. To keep costs down – and there is constant 4…………………………………to do so by agencies – you might try to limit numbers of animals. But that means the power of your research to 5……………………………………a real biological effect is limited. Often your results are produced purely by chance. However, to make your research more robust – to raise its statistical power from 50% to 80% – you would have to double the number of animals you use and so increase its cost, in our example, by another £100,000.”

**C. Fill in the blanks with the following phrases. There are two options you will not need: (10 points)**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. from | 2. about | 3. than | 4. at the expense |
| 5. toward | 6. focus on | 7. brought on  |  |

### Factory Farms

A factory farm is a large, industrial operation that raises large numbers of animals for food. Over 95% of farm animals in the U.S. are raised in factory farms, which 1…………………………. profit and efficiency 2…………………………….........of animal welfare.

**Chickens**

The United States raises and slaughters almost 10 times more birds 3…………………………any other type of animal. Approximately 8.5 billion chickens are killed for their meat every year, while another 300 million chickens are used in egg production. All birds—egg-laying hens, meat chickens, turkeys, ducks, geese and others—are excluded 4………………………….all federal animal protection laws. By the numbers, these are the animals most urgently in need of protection. The ASPCA is focused on raising public awareness about the plight of chickens raised for meat and is [working actively with companies that buy or raise chickens 5………………………………the adoption of better practices](https://www.aspca.org/shopwithyourheart/business-and-farmer-resources).

*From www.aspca.org*

Good luck!