**8 SCIENCE 2016**

### BIOLOGY TEST ONE

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Mark: /52

**Percentage: %**

**SECTION A: MULTIPLE CHOICE (20 marks)**

**Select the most correct answer for each question below.**

**Please circle your answer on the multiple choice answer grid below.**

1. **A** B C D 11. A **B** C D

2. **A** B C D 12. A **B** C D

3. A **B** C D 13. **A** B C D

4. A B **C** D 14. A **B** C D

5. A B **C** D 15. **A** B C D

6. A B C **D** 16. A **B** C D

7. A **B** C D 17. A B C **D**

8. A **B** C D 18. A B **C** D

9. **A** B C D 19. A B **C** D

10. A B **C** D 20. A B **C** D

**1.** Ribosomes help the cell by:

**(a) Making proteins.**

(b) Making energy.

(c) Removing wastes.

(d) Storing wastes.

**2.** Which of these choices is not an organelle?

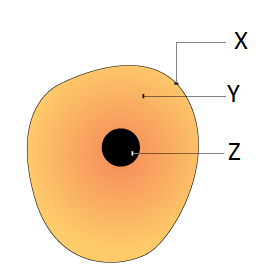
**(a) Lung.**

(b) Endoplasmic reticulum.

(c) Chloroplast.

(d) Mitochondria.

**3.** Look at the diagram on the right. What is shown by the labelling

 line ‘X’?

**(a) Cytoplasm.**

(b) Cell membrane.

(c) Nucleus.

(d) Cell wall.

**4.** Look at the diagram on the right. What is shown by the labelling

line ‘Z’?

(a) Vacuole.

(b) Cytoplasm.

**(c) Nucleus.**

(d) Mitochondria.

**5.** Choose the correct definition for ‘microscopic’.

(a) Describes objects that can be seen without using a microscope.

(b) An object made of atoms.

**(c) Describes objects that can only be seen using a microscope.**

(d) A type of magnifying lens.

**6.** Choose the correct definition for ‘magnified’.

(a) Made brighter.

(b) Made clear.

(c) Made smaller.

**(d) Made bigger.**

**7.** Choose the correct definition for ‘image’.

(a) A photo of a specimen.

**(b) What is seen using the microscope.**

(c) An inverted specimen.

(d) The object being looked at through a microscope.

**8.** Choose the correct definition for ‘specimen’.

(a) The slide with film.

**(b) The object being looked at through a microscope.**

(c) Plant or animal cells.

(d) What is seen using the microscope.

**9.** What is the job of the cell membrane?

**(a) To control what substances to into and out of the cell.**

(b) To give a plant cell its shape.

(c) To control what happens inside the cell.

(d) To make energy for the cell.

**10.** When a dead plant or animal is cut apart to be studied, this is called a:

(a) Biology.

(b) Butchery.

**(c) Dissection.**

(d) Intersection.

**11.** As the magnification of a microscope increases, then you can see:

(a) More of the specimen.

**(b) Less of the specimen.**

(c) More intensity.

(d) Less intensity.

**12.** What cell feature is responsible for powering the cell?

(a) Endoplasmic reticulum.

**(b) Mitochondria.**

(c) Ribosomes.

(d) Nucleus.

**13.** The amount of the specimen you can see through a microscope is called the:

**(a) Field of view.**

(b) Magnification.

(c) Illumination.

(d) Image.

**14.** The hard part that surrounds a plant cell is called:

(a) Chloroplast.

**(b) Cell wall.**

(c) Cell membrane.

(d) Control centre.

**15.** The plant cell structure where photosynthesis takes place is called:

**(a) Chloroplast.**

(b) Vacuole.

(c) Cytoplasm.

(d) Green plant.

**16.** 6 millimetres is made up of how many micrometres?

(a) 0.6

**(b) 6000**

(c) 60

(d) 600

**17.** 8000 micrometres is made up of how many millimetres?

(a) 0.008

(b) 0.08

(c) 80

**(d) 8**

**18.** Which of the following organelles would be present in large numbers in cells that require a lot

of energy?

(a) Ribosomes.

(b) Nucleus.

**(c) Mitochondria.**

(d) Endoplasmic reticulum.

**19.** Name the part of animal cells that is a watery jelly-like liquid.

(a) Chlorophyll.

(b) Chloroplast.

**(c) Cytoplasm.**

(d) Plasma.

**20.** Select the incorrect statement.

(a) The coarse focus knob moves the microscope tube up and down.

(b) The stage clips hold the slide in place on the stage.

**(c) The objective lens is the part of the microscope you look through.**

(d) The fine focus knob is used to make fine adjustments on the focus.

**SECTION B: SHORT ANSWER (32 marks)**

**1.** Label the diagram of the animal cell below.

**(0.5 mark each – needs to be phonetically correct)**  (4 marks)

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**2.** Label the diagram of the plant cell below.

**(0.5 mark each – needs to be phonetically correct)**  (4.5 marks)

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**3.** Explain three main difference between an animal cell and a plant cell. Write in full sentences. (3 marks)

Plant cells contain chloroplast whereas animal cells do not contain chloroplast.

Plant cells have a cell wall where animal cells do not have a cell wall.

Plant cells tend to have larger vacuoles than animal cells.

Animal cells have lysosomes whereas plant cells do not have lysosomes.

**Any three of the above, if not in full sentences, deduct one mark.**

**4.** Write a definition for the word ‘organelle’. (2 marks)

**The smaller parts inside a cell.**

**5.** Label the diagram of the microscope below.

**(0.5 mark each – needs to be phonetically correct)**  (4.5 marks)



**6.** Fill in the missing words. **(0.5 for each missing word).**  (2 marks)

There are three **objective** lenses.

The three magnifications are x4, x10 and x40.

**7.** Fill in the table below. (5 marks)

|  |  |
| --- | --- |
| **Organelle** | **Function** |
| Mitochondria | **The organelle that produces energy.** |
| **Endoplasmic reticulum** | Organelles that move materials through the cell. |
| Nucleus | **The control centre of a cell.** |
| **Lysosomes** | Organelles that remove waste from the cell. |
| Chloroplast | **The organelle in plant cells where photosynthesis occurs.** |

**8.** The things you look at under the microscopes are so small so cm or mm are not used.

State the unit of measurement used to look at things under a light microscope and the symbol

for the unit of measurement. (1 mark)

**Micrometre, µm (need both for one mark)**

**9.** Describe how you would safely carry a microscope. (2 marks)

**Holding the handle/arm with one hand (1) and keeping your other hand under the base of the microscope (1).**

**10.** Circle either true or false for the following statements. (4 marks)

There are only two types of cells. True **False**

You can see most cells without a microscope. True **False**

Plants have organelles that animals do not. **True** False

The higher the microscope magnification, the smaller  **True** False

the microscope field of view will be.