

**ÉRETTSÉGI VIZSGA • 2010. május 12.**

**BIOLÓGIA  
ANGOL NYELVEN**

**KÖZÉPSZINTŰ ÍRÁSBELI  
ÉRETTSÉGI VIZSGA**

**JAVÍTÁSI-ÉRTÉKELÉSI  
ÚTMUTATÓ**

**OKTATÁSI ÉS KULTURÁLIS  
MINISZTERIUM**

## Instructions for marking intermediate level papers

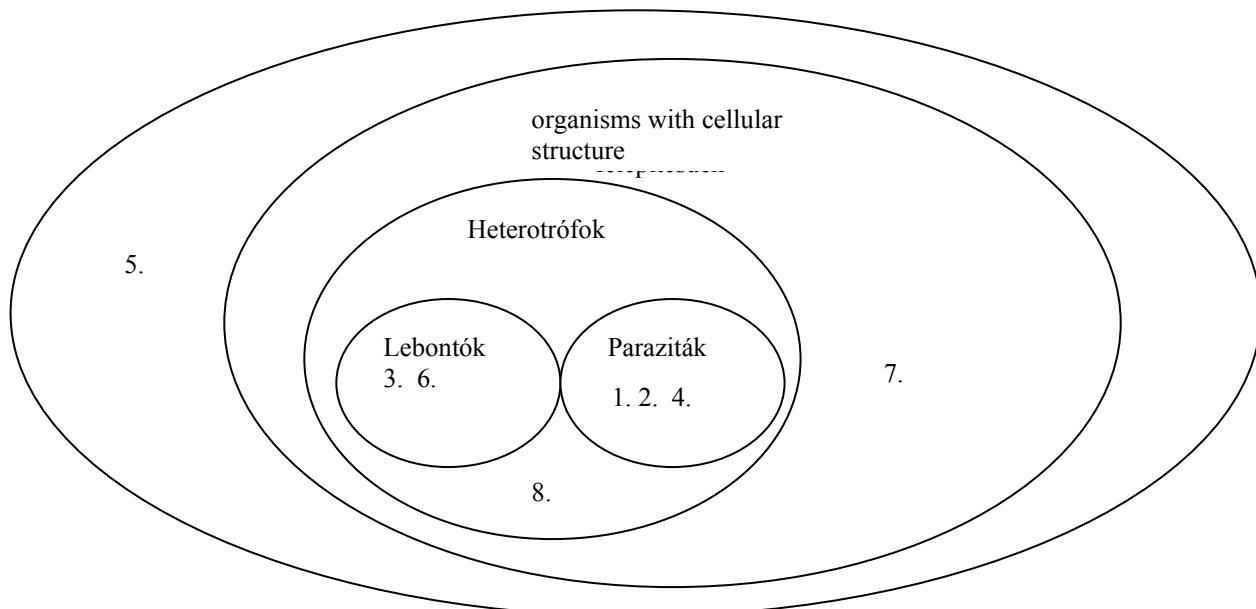
1. Always use **red ink**.
2. Tick the correct answers. **Each tick is awarded 1 point**. Half points cannot be given. Put two ticks if the candidate answered a question with 2 points correctly.
3. If the answer is correct but not included in the marking scheme it can still be accepted. The same principle applies to synonyms. (e. g. :*platelets*—*trombocytes*)
4. Equally correct, alternative ansewers are separated with a **backslash (/)** in the marking scheme.
5. At the end of each task **add up the points** in the grey chart.
6. At the end of the paper indicate the total points awarded for each task **in the final summary chart** and, by adding them up, work out the total score.
7. The **total score achieved in the paper has to be multiplied by 1.25** to give the total score in percentages for the written part of the examination. If the calculated total score is not an integer it has to be rounded according to the rules of rounding.
8. If the candidate is asked to compose whole sentences (e.g. to give reasons or explanations) only grammatically correct sentences can be accepted. Please, **do not deduct points for spelling mistakes but do not accept answers with ambiguous meaning**.

Good luck for your work.

**I. Different Life Forms****8 points**

This task is based on the following chapters of the Detailed Requirements: 2.2.1., 3.2.1., 5.4.1., 3.2.2., 3.3.1., 5.1.2. és 5.4.1.

Each correct number is awarded 1 point

**II. Lantern squid****8 points**

The task is based on the following chapters of the Detailed Requirement: 3.4.2, 5.1.2

Figure: the original

1. Cephalopods
2. Symbiosis
3. Into the mental cavity
4. Camera eye (or any other characteristics of camera eye, e.g. an adjustable eye lens. Any other characteristics shared with other eye types, e.g. light sensitive receptor cells or figure perception etc., will not be accepted.)
5. with the help of the jet of water squeezed out of the mantle cavity, or other similar explanation based on the idea of water jet propelling the animal  
*Each correct answer is awarded 1 point*

6. C, E, G    *Each correct letter is 1 point, total:*

3 points

**III. The Cell****10 points**

This task is based on the following chapters of the Detailed Requirements: 2.2.3., 2.3., 2.3.1., 2.3.3., 3.2.1., 3.3.1., 3.4.3., 3.4.4.

The source of figure: [www.bodorzoltan.hu](http://www.bodorzoltan.hu)

1. B  
D

1 point  
1 point

	Name of the cellular organelle	Letter
2. It is made up of a lipid bilayer and controls the movement of materials in and out of the cell.	cell membrane	B
3. It is the site of RNA synthesis	cell nucleus	E
4. Ribosomes are located on its surface where protein synthesis is carried out	(rough) endoplasmic reticulum	D
5. It determines the shape of the cell	cell wall	A
6. The synthesis of glucose also takes place here.	chloroplast	G

Each line answered correctly is awarded 1 point (less than 1 point cannot be given).

Total 5 points

7. Biological oxidation    1 point  
8.  $C_6H_{12}O_6 + 6 O_2 = 6CO_2 + 6H_2O$                                   1 point  
9. D    1 point

**IV. Endocrine Glands****10 points**

This task is based on the following chapters of the Detailed Requirements 4.8.4

Figure: Pickering, W. R: Biology through diagrams Oxford Univ. Press, 2002

Each correct letter is awarded 1 point.

1. F
2. D
3. E
4. C
5. A
6. B
7. A
8. A
9. G
10. D

**V. Cichlids****10 points***This task is based on the following chapters of the Detailed Requirement:**The source of the text: Lorenz, Konrad: Halvér in: Salamon király gyűrűje Cartaphilus Kiadó 62-69. o.**Source of figure: Both Mária-Csorba F László: Források – Természet-tudomány-történet I. Nemzeti Tankönyvkiadó, 2003*

1. C

2. during their spawning period they take such a heroic stand against even their most formidable enemy...	A	B
3. blue spots began to appear on one of the two biggest fish.	C	
4. her bluish black blouse without the decorative blue spots gave her sex (female) away	C	
5. In the end the couple positioned themselves above their nesting site and protected their territory desperately.	A	B

*Each line correctly filled in is awarded 1 point*

6. New genes are switched on. / The changes are caused by hormones.

7. They are inversely proportional. The larger the number of offspring, the less intensive the parental care is.

8. D

9. B

10. It regulates the buoyancy of the fish. / It controls the up and down movement of the fish. / It controls the density of the fish

*Alternative wording is also acceptable**Each correct answer is awarded 1 point***VI. The carbon cycle in nature****9 points***This task is based on the following chapters of the Detailed Requirements: 5.4.1**Figure: Bánkuti-Both-Csorba: Sokaság és történelem (kézirat)*

1. T
2. F
3. T
4. T
5. T
6. F (Oxygen is used to give rise to water.)
7. T

*Each correct answer is awarded 1 point.*

8. The burning of oil/gas/and other coal resources at an increasing rate. / Reducing the amount of green vegetation capable of carrying out photosynthesis. Other correct answers are also acceptable.

1 point

Increased greenhouse effect can change the global climate / water cycle / global currents / can cause (local) warming / can cause the polar ice cap to melt which, in turn, can lead to rising sea levels/ extinction of some species and the distribution of other species

1 point

*Alternative wording is also acceptable*

**VII. Results of Mendel****10 points**

*This task is based on the following chapter of the detailed Requirements: 6.2.1  
Each correct answer is awarded 1 point*

1. A
2. D
3. A
4. C
5. B
6. C
7. D
8. C
9. D
10. C

**VIII. Digestion and fermentation****10 points**

*This task is based on the following chapters of the Detailed Requirements: 2.1.4; 2.2.3; 2.3.3  
Each correct answer is awarded 1 point*

1. A
2. B
3. D
4. D
5. B
6. D
7. D
8. D
9. C
10. C

**IX. Our Elements****5 points**

*This task is based on the following chapters of the Detailed Requirements: 2.1.1.  
Each correct answer is awarded 1 point*

1. I
2. C
3. N
4. Fe
5. Ca