

ÉRETTSÉGI VIZSGA • 2006. május 18.

**BIOLÓGIA
ANGOL NYELVEN
BIOLOGY**

**KÖZÉPSZINTŰ ÍRÁSBELI
ÉRETTSÉGI VIZSGA
INTERMEDIATE LEVEL
WRITTEN EXAM**

**JAVÍTÁSI-ÉRTÉKELÉSI
ÚTMUTATÓ
KEY AND GUIDE FOR
EVALUATION**

**OKTATÁSI MINISZTERIUM
MINISTRY OF EDUCATION**

Instructions – How to Mark the Intermediate Level Paper

1. Always use **red ink**.
2. Tick correct answers. **Each tick** is equivalent to **1 point**. You can not give half the point. Indicate with two ticks, if the candidate answered correctly an assignment of two points.
3. Please accept the answer, if it is correct, but not mentioned in the Answer Key. The same procedure should be applied in the case of synonyms (e.g.: *platelets – thrombocytes*).
4. In the Answer Key equally acceptable answers are separated with **backslash (/)** from one another.
5. At the end of the assignment **add the points up** in the grey-coloured chart.
6. At the end indicate the detailed points for each assignment **in the final summary chart** and add them up to indicate the total score.
7. The total points achieved in the examination paper (student's points) **multiplied by 1.25** will give the total score for the written part of examination. The final evaluation is the points for the written part of the exam expressed in percentage. If the calculated total point is not an integer, please round it according to the rules of rounding.
8. If the candidate was asked to compose whole sentences (e.g.: giving reasons or explanations) – only grammatically correct sentences are acceptable. **Please, do not deduct points for spelling mistakes, yet do not accept misleading compositions.**

We wish you a successful work.

I. Edible and poisonous mushrooms

10 points

The assignment is based on Chapter 3.3.3. of the Detailed Requirements.

Source of pictures: Helmut és Renate Grünert: Gombák; Magyar Könyvklub, Budapest, 1995.

1. Species A: Field mushroom	Species B: Death cap	1 point
2. A		1 point
3. B		1 point
4. B		1 point
5. C		1 point
6. C		1 point
7. D		1 point
8. B		1 point
9. D		1 point
10. B		1 point

II. Hop Hornbeam

6 points

The assignment is based on Chapters 3.4.1 and 5.4.1 of the Detailed Requirements.

- | | |
|--|---------|
| 1. Hop Hornbeam, hazel family, order of beeches – if all three are named | 1 point |
| 2. fruit | 1 point |
| 3. aridity tolerant and thermophilic (if both are named) | 1 point |
| 4. producer(s) | 1 point |
| 5. (Southern European) Downy oak – Flowering Ash karst forests. | 1 point |
| 6. No. | 1 point |

III. Comparison of two animal species

8 points

The assignment is based on Chapter 3.4.2 of the Detailed Requirements.

1.	It has a segmented body.	C
2.	It moves by its muscular body wall.	B
3.	It is capable of gas exchange over its entire body surface.	B
4.	It is a decomposer.	B
5.	It moults in the course of its development.	A
6.	It is a parasite.	D
7.	It is a primary consumer in the food web.	D
8.	Its nervous system consists of a nerve cord (of ganglia).	C

IV. The migration of garden warbler

6 points

The assignment is based on Chapters 3.4.4 and 4.8.2 of the Detailed Requirements.

Source of map and text: P. J. B. Slater: Introduction to ethology

Mezőgazdasági Kiadó Bp. 1987 pages 35-37.

- | | |
|--|---------|
| 1. Lack of adequate temperature/drinking water/sufficient amount of food (<i>two reasons together</i>) | 1 point |
| 2. Approx. two months | 1 point |
| 3. Flying over continents/evasion of open seas/evasion of mountains (<i>any one of these</i>) | |

4. Under experimental conditions the appearance of the behaviour does not depend on the change in the length of illumination. / Even the specimens raised in captivity wanted to leave their cage in the time of migration. 1 point
 5. The experimental specimens fly in the same direction as the free living specimens. 1 point
 6. The behaviour appears even in the case of chicks hatched in captivity (it is not learnt from parents/other individuals) 1 point
- (If the reason of point No. 6. is already mentioned by the examinee in point No. 4 or 5 point should be given for it in point No. 6.)*

V. The engine of blood circulation

12 points

The assignment is based on Chapter 4.6.3 of the Detailed Requirements.

1.
 - A) Left ventricle 1 point
 - B) Right atrium 1 point
 - C) Aorta 1 point
 - D) Pulmonary arteries 1 point
2. BD 1 point
3. A 1 point
4. Arterial/oxygen-rich blood 1 point
5. B 1 point
6. C 1 point
7. Coronary blood vessels 1 point
8. Myocardial infarction/heart attack 1 point
9. Abstention from smoking/exercise, sport/diet poor in saturated fatty acids/avoidance of unrelieved stress/diet rich in fruits and vegetables/diet poor in sugar (naming any three of these or any other acceptable factors) 1 point

VI. Cells and chromosomes

10 points

The assignment is based on Chapters 2.3.4; 4.9.1 and 6.1.1 of the Detailed Requirements.

(Each correct answer is awarded by 1 point)

1.	Egg/ovum	B
2.	Female somatic cell	D
3.	Contains 23 pairs of chromosomes	A
4.	If this cell participates in fertilisation the offspring will be genetically a boy	C
5.	It was created by mitosis.	A
6.	The epithelial cells of a man contains such chromosomes.	A
7.	Approximately one such cell is created monthly in the years of fertility of a woman.	B
8.	An egg can develop from it by meiosis	D
9.	It can produce gametes by mitosis	D
10.	It can produce somatic cells by mitosis	A

VII. Hearing and balance

9 points

The assignment is based on Chapter 4.8.1 of the Detailed Requirements.

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

VIII. The tricks of infection

6 points

The assignment is based on Chapters 2.3; 2.3.1; 3.4.4; 4.4.2 and 4.8.5 of the Detailed Requirements.

- | | | |
|----|-------------------|---------|
| 1. | A | 1 point |
| 2. | B | 1 point |
| 3. | Proteins | 1 point |
| 4. | The cell membrane | 1 point |
| 5. | Absorption | 1 point |
| 6. | CE | 1 point |

Source of citations:

Dr. Györfy Zsuzsanna: Fertőzési fortélyok
(Élet és tudomány 2005. 8. szám, 234-235. o.)

IX. Genetic counselling

13 points

The assignment is based on Chapter 6.2.1 of the Detailed Requirements.

Unless indicated otherwise each correct answer is awarded by 1 point.

1.	2.	3.	4.
B	T	T	F

- aa
- both of them are Aa (only if both genotypes are correct can 1 point be awarded)
- Aa x Aa

	A	a
A	AA	Aa
a	Aa	aa

- The probability of the birth of a sick child is 25%.
- | | | |
|----|---|---------|
| 8. | 50% | 1 point |
| 9. | $0.25 * 0.5 = 0.125$ (12.5%, 1/8) probability | 1 point |
- Correct answer: 1 point reasoning: 1 point 2 points
10. 75%. The outcome of the first birth does not affect that of the second one.
Correct answer: 1 point reasoning: 1 point 2 points