8th Hungarian Geographical Contest

2nd Round

Written Test

MARKING

10 December, 2016

Instructions for Markers

1. One whole section per marker:

   Section A – Dóra Bálint
   Section B – Szabolcs Czigány
   Section C – Edina Józsa
   Section D – Dóra Bálint
   Section E – Viktória Nemes
   Section F – Éva Máté

2. The maximum total points: 90. There is a maximum of 15 marks for each Section.

3. Get the hang of the full range of answers by reading through a few papers with your comarker before you start your marking.

4. **These answers are not exhaustive. Credit any relevant answer.**

5. The Test uses two marking systems: point and level marking.

6. Half marks can only be given where indicated.

7. Mark only the required number of answers (reasons, examples, etc.). For instance, if the question asks for 2 reasons and there is more than 2, only the first 2 reasons should be marked.

Section A: Deforestation - The Trans-Amazonian Highway
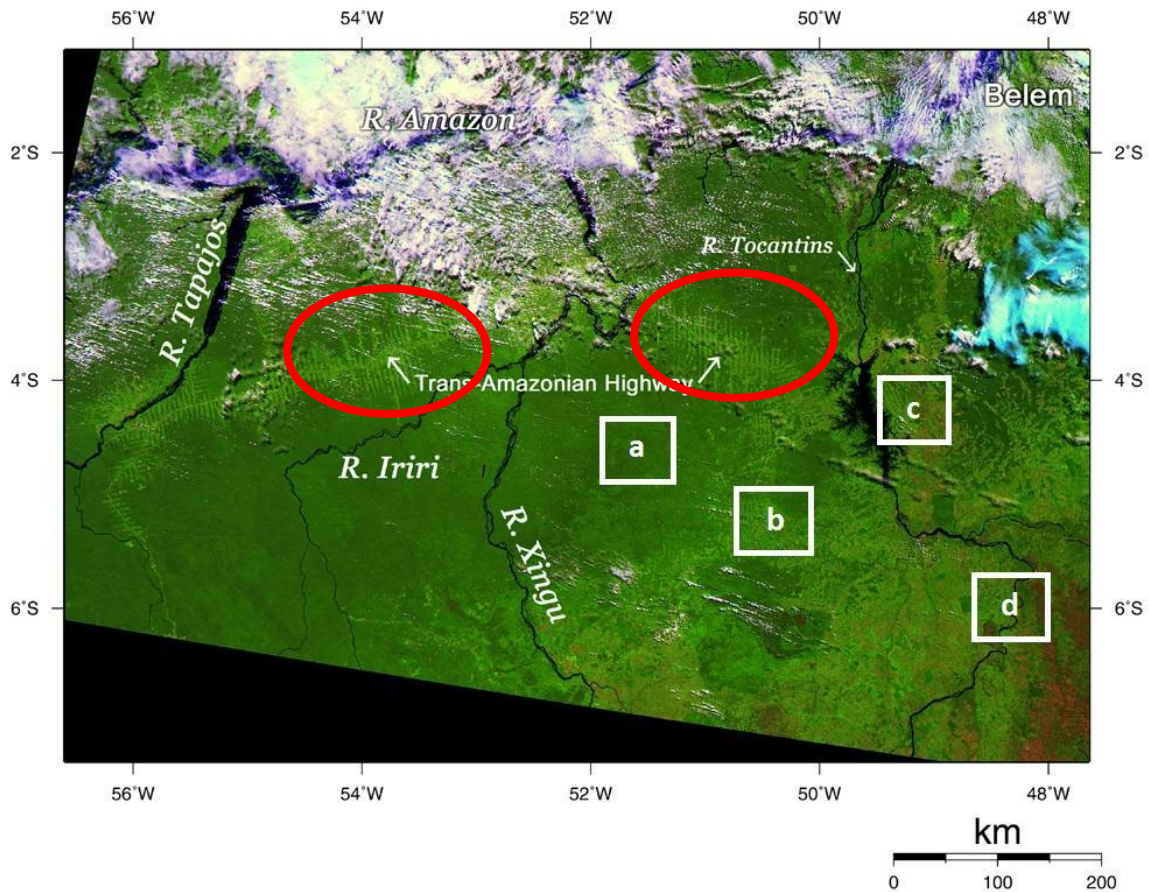
(http://www.eorc.jaxa.jp/en/earthview/2003/img/tp030904_02.jpg)

1. Identify the **natural objects** presented with the following colours in the satellite image! (0.5 point each = **2 points**)

   POINT MARKING

   a. Dark green: **Tropical rainforests – 0.5 p**
   b. Light green: **Grassland OR pastures – 0.5 p**
   c. Black: **Rivers, lakes OR no data – 0.5 p**
   d. Reddish brown: **Little vegetation (bare land or bare rock) – 0.5 p**

2. a. Explain the link between **deforestation** and **desertification**! Name two reasons of deforestation caused by humans! **(3 points)**

b. Draw one circle, which **shows deforestation** on the map! **(1 point)** – **two circles in the map**

3. Recently **global-scale satellite** observation has been essential to follow-up environmental changes on Earth. Name two other natural and one social changes where these technologies are also useful l! **(3 points)**

4. The Trans-Amazonian Highway Project started in the 1970s. Brazil planned a 2,000-mile highway, which cuts across the Amazon forest. As usual, some groups in society had different motivations to support or reject the project.

Write two possible impacts or reasons why they had positive/negative view on construction!

Which groups do you think supported and which were against the Highway? Indicate your choice in the third column!

Study Figure A1 in the Source Booklet about the background! **(6 points)**

Groups	Impacts/Reasons	Supporters opponents (Write S or O!)
Farmers/ranchers/miners	1. **More land to grow their products / more job opportunities mines (0.5)** 2. **More and cheaper land to build houses, towns (0.5)**	**S (1 p)**
Indigenous people	**3. Socio-cultural changes: traditional language, cultural traditions disappear (0.5)** 4. **Conflicts with farmers because of their land/forest distracted (0.5)**	**O (1 p)**
Environmentalists/researchers	5. **Damage the ecosystem, the fragile ecology of Amazon (0.5)** 6. **Long-term environmental costs of construction: deforestation (0.5)**	**O (1 p)**
Developers	**7.Provide employment and markets for the poor (0.5)** 8. **Improving the economic output by millions of tonnes (0.5)**	**S/O (1 p)**

LEVEL MARKING
Answers must be written in sentences
O/S can be both accepted in the last two cases if the impacts/reasons are correct.

B: Global thinking with biogeography

1. a. Study Figure B1 in the Source Booklet! We have **9 pictures and 9 hints for the locations of the photos**. Give the letter of the photo! (4.5 points)

POINT MARKING

1. **d**

2. **e**

3. **i**

4. **b**

5. **a**

6. **c**

7. **g**

8. **h**

9. **f**

1.b. We have **4 pictures from two islands** and **5 pictures from two continents**. Answer the following questions:

POINT MARKING

a. How many pictures were taken in the southern hemisphere? (1 point)

   5

b. Obviously, in one of the continents three pictures were taken. Name this continent! (1 point)

   South America

c. Name the major morphological feature (whitish-bluish-coloured) on picture (f)! (1 point)

   glacier

d. Name the major morphological feature in the background of picture (c)! (1 point)

   volcanic crater/caldera

e. There are three states along the west coast of the US. Two of the pictures were taken in two of the states. Which state is *not represented* here among the three? (hint: This state was named after the first president of the US) (1 point):

Washington

f. Name the two islands and the two continents where the pictures were taken! (4 points):

Sri Lanka/Ceylon, New Zealand, South America, North America

g. What was the name of Darwin's ship with which he sailed across the globe? (1.5 points):

Beagle

Section C: Hazards and risk assessment

1. Study Figure C1 in the Source Booklet showing the **natural hazards** occurring on the Island of Riziking! **(5 points)**

a. Name the natural hazards, which **symbols are shown** in the circles! (2.5 points)
POINT MARKING

1: **landslide, rock fall**

2: **earthquake**

3: **tsunami, storm wave**

4: **snow avalanche, rock fall, lavina**

5: **typhoon, hurricane, tropical storm, tornado**

b. Identify the **natural hazard that could not co-occur** with the others on the island! (0.5 point)
snow avalanche

c. Specify which **archipelago** the Island of Riziking could belong to considering that it has a total area of 15.000 km^2! (1.5 points)
Philippines,
OR Indonesia, Greater Antilles (Caribbean), Hawaii, Melanesia

d. Specify the **origin** of the Island of Riziking! (0.5 point)
volcanic island ((not) hotspot),
OR convergent plate boundary (collision, subduction, fault line, geologically active region)
Every answer can be accepted.

2. Study Figure C2 in the Source Booklet showing diagrams about **risk assessment**! (5 points) **POINT MARKING**

a. Match the **terms** with the **definitions** below! (3 points)

Hazard: B (1 p)   **Vulnerability: A** (1 p)   **Risk: C** (1 p)

A = Number of lives, property value, economic capacity, etc. exposed to the given phenomenon.
B = The probability of a damaging phenomenon to occur that is capable of causing loss of life and property, or adverse environmental impacts.
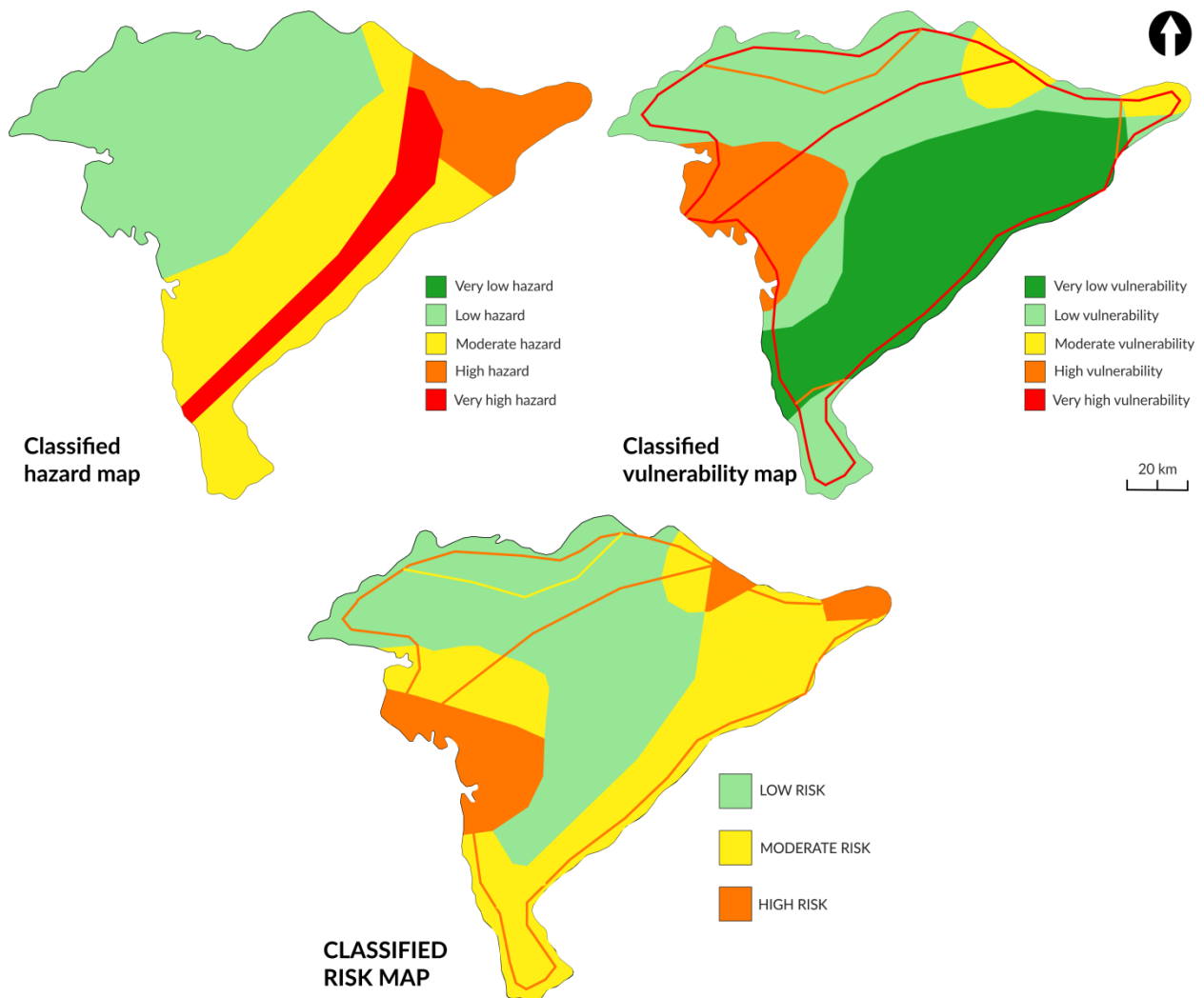**C =** Relates to the severity of social, economic and environmental impacts posed by the damaging phenomenon.

b. Explain the **relation between the magnitude** of a damaging phenomenon and the **risk** it poses! (2 points)

It is not the large hazardous events that occur only very rarely, nor the highly recurrent small events that pose the greatest risk.

3. Study the presented classified **hazard map and vulnerability map** of the Island of Riziking! (5 points)

a. **Draw the risk map** of the island! Specify the legend of your map! (3 points)

Classified
hazard map

- Very low hazard
- Low hazard
- Moderate hazard
- High hazard
- Very high hazard

Classified
vulnerability map

- Very low vulnerability
- Low vulnerability
- Moderate vulnerability
- High vulnerability
- Very high vulnerability

20 km

CLASSIFIED
RISK MAP

- LOW RISK
- MODERATE RISK
- HIGH RISK

Every logical solutions were considered.

b. **Outline the differences** between the classified hazard and vulnerability maps! Explain how they **affect** the risk map! (2 points)

Section D: Planned capitals in a changing world – urban sprawl in Canberra

1. Planning a new capital is a huge project. Write **three geopolitical reasons** why governments decide constructing a new capital! (3 points)
POINT MARKING

Three reasons: **better shipping harbours, disadvantageous geographical location, accessibility from all parts of the country OR location can be suitable for all ethnic groups.**

   b. Name **two capital cities,** which were constructed in the 20th century! (2 points)

POINT MARKING
South America: **Brasilia**

Asia: **Astana OR Islamabad, New Delhi**

Every other correct answer can be accepted.
Important note: we accept capitals only which has been constructed in the 20th century

2. On a map which elements can show that a **city is planned**? Name one element from your lexical knowledge! Study Figure D1 in the Source Booklet. Give the picture's number, which represents the planned district! (2 points)

POINT MARKING

Map element: **geometric – radial city structure, linear and wide roads**

Picture Number: **2**

3. a. Which **non-renewable energy** is responsible for the high speed of urban sprawl? (1 point)

POINT MARKING

oil (and low oil prices)
This answer is not accepted: fossil fuels (too broad)

b. Study Figure D2 in the Source Booklet, which shows the proportional travel modes to work in large Australian cities.

What characteristic of the chart refers that **urban sprawl is widespread** in Australian cities? Give the right colour of column! (1 point)

POINT MARKING

high proportion of red/orange (car/truck drive) means they commute from relatively longer distances

c. How can be the **proportion of the red/orange column** increased? (1 point)

POINT MARKING

carsharing companies, facilitating car-pooling (car-pooling lines), support online websites like ridesharing OR developing public-transport system

4. Urban sprawl has numerous effects and not all are positive. Elaborate why physical expansion can be **disadvantageous** for cities. (5 points)

LEVEL MARKING

People in suburbs use cars for commuting to work every day, which increases daily traffic, traffic jams can occur, air pollution may lead to smog, lower quality of life.

More buildings require more space, which threatens wildlife and increases infrastructure lead to positive heat islands.

Upper and middle class taxpayers move out from city, financial problems may occur. Empty downtown quarters can be occupied by lower class people, ghettos may appear.

Section E: Boy or Girl? Gender bias and the status of women in India

1. Study Figure E1 in the Source Booklet, which shows the sex ratio (number of females/males) **changes in India** and Figure E2. Answer the questions below!

a. What tendencies can you observe on the graph? (2 points)

POINT MARKING

Tendency 1: **there is an increase (fluctuation) in the sex-ratio of the total population (number of women increased)**

Tendency 2: **while the sex-ratio of the 0-6 age group is dynamically decreasing (number of girls is decreasing drastically)**

b.What are the probable causes of this tendency in the case of total population? Name one! (1 point)

POINT MARKING
the improvement of the status of women above the age of 6 (higher rate of migration in the case of men – 0,5 points)

c.What are the probable causes of this tendency in the case of 0-6 age group? Name one! (1 point)

POINT MARKING
Thespread of ultrasound techniques from the 1960's and other sex determination methods from the 1980's, OR son preference (higher reputation/status of boys), discrimination of girls, the neglecting of female infants and girls (higher death rate/die before the age of 6 – 0,5 points).

2. There is a saying in India: "Raising a daughter is like watering your neighbour's garden". Study Figure E3 and explain what **can be the reasons behind this saying**? (2 points)

Reason 1: **The family of the bride have to pay dowry to the fiancé.**

Reason 2: **The price of the dowry is quite high. This places a very big burden on poor families who may have to struggle for living after marry their daughter/s off.**

3. Study Figure E4 in the Source Booklet and describe the probable **socio-cultural and economic reasons** behind this situation (using all sources) in a half-page essay! Suggest some possible solutions for this problem! (9 points)

LEVEL MARKING

Son preference, higher reputation of boys, dowry for girls is too expensive, girls will leave their family and could not help their parents, religious importance of boys, harder for a women to find job, poorer education of girls/women; The possible solutions can be:
protests, women empowerment projects, practicing the rights of women, education, educational films etc.
Every other possible solutions can be accepted.

Section F: Urban planning - The Happy Goods Market

1.a. According to the following data and to the information given on the map calculate, which route and which source would be the most optimal to get the products to your shop.

You have three opportunities to choose from: Hypermarket 1 or 2, and the Local Market place. Write down all your calculations into the space provided and highlight the route, you found optimal. Your final solution should be the place of supply, which you are asked to name below! (2 points for the calculations, 1 point for the correct solution, total 3 points)

Your vehicle: Fiat Talento

Fuel consumption: 8 l/100 km

Calculate here:

POINT MARKING

Hypermarket 1 (shortest route there and back):

313 mm= **6.25 km**

(6.25/100)*8= **0.5 l** (fuel consumption/route)

Hypermarket 2 (shortest route there and back)

275 mm= **5.5 km**

(5.5/100)*8= **0.44 l** (fuel consumption/route)

Local Market (shortest route there and back)

75 mm= **3 km**

(3/100)*8= **0.24 l** (fuel consumtion/route)

The optimal origin of supply: **Local Market**

1.b. You are thinking of getting all the supply from the local market. Give three arguments for, and three against buying the goods from the local market! Make sure you take a stand on both sides, for and against the local market. (1 point each, total 6 points)

Arguments for	Arguments against
1. **Fresh food, vegetables, fruits, household meat, milk, etc.**	1. **Small assortment of goods – lack of tropical fruits for example**
2. **Good for the local economy**	2. **Needs more time – have to buy the goods type-by-type one-by-one**
3. **Cheaper and more sustainable, because there is less costs of transport, no emission**	3. **Very seasonal, difficult to gain everything we need**

*Just examples, other good answers can be accepted
Arguments, which refer to 1.a. task are not accepted. That means, that the solutions, which are explaining the traffic and road circumstances and reaching of the market place are not correct!

1.c. As a 21st century entrepreneur, you are about to run your enterprise according to sustainable development. What can you do for social **sustainability**?

Firstly, explain a social problem that could arise in the city, and then explain what you can do against it, in the frames of social sustainability! Do not forget to discuss, why your solution is socially sustainable. (2 points for the social problem defined, 4 points for the correct explanation, total 6 points)

LEVEL MARKING

Social problem: **Many homeless people can be found in your city. They have a very bad health condition, alcohol and drug addiction, and sometimes they are starving.***

Solution: One reasonable thing can be, if the enterprise would give all the food left behind every day, or the food coming close to their expiration date to the social institute/NGO, which tries to take care of the homeless people in the city. They can cook this food for them, so starvation would be prevented. Although, in this case, the problem would be only treated, but not solved. Another good approach could be, to give easy work to this people every day for some money; they can handle the garbage, clean up the area of the shop, or simply help with packing the goods. It is also possible, that some food can be given to them for their help. Maybe this could prevent the mass alcoholism or drug addiction, because they can find some sense in their everyday lives. It also could help, if the local small enterprises of the city would organise some social programs, where the entrepreneurs could cook together for the people in need, so they would feel, the society takes care of them. **

*;** Just one example, any other correct answer is accepted.**

All solutions, which discuss an environmental problem and/or environmental sustainability, are not accepted, because the task was to find social problems and socially sustainable solutions.

All the essays, in which an economic sustainability problem was discussed, are only partly accepted, because they are not social issues.

Other mistakes:

local government policies in the discussion – the task was to think in the frames of your enterprise

business management and marketing elements in essays – these are also not sustainability questions

partly accepted solutions, which were environmental sustainability discussions, but some social aspects were included