## **YOUNGER JUNIORS**

1.

A)

China, Russia, India

(each correct answer 0,5 points)

B)

- Climatic and hydrological (enough water)
- geomorphological (fall of the riverbed)
- fold mountains are favorable
- also as terrains made of hard and resistive rocks
- then spaces with glacial erosion (especially great possibilities for the construction of hydroelectric power plants have glacial erosion areas, because there are large unevenness of the fall of water, high valleys create waterfalls, there are numerous natural water tanks that can be easily artificially increased, and at the foot of glacier terrain there are terminal basins that are suitable for the creation of water reservoirs)

**C**)

# Negative effects:

- Forest
- Arable land
- Settlements are flooded
- This requires the emigration of the population upstream of the dam and the compensation of damage for everything that has been sunk
- A precipitate containing nitrogen, which was previously used as a fish food, is now accumulating from the dam and reduces the accumulation capacity.
- The dams change the temperature and oxygen regime of the river in the downstream.
- Large water accumulations on unstable geological structures can cause increased seismic activity in the environment.

2.

A)

- In the western coastal strip of the Scandinavian peninsula, the oceanic climate is dominated, and in the hinterland subpolar and polar climate
- Gulf Stream / Norwegian stream (its impact on sea and air temperatures is felt in a narrow coastal strip all the way to the east coast of Kola)
- $\bullet~$  The air temperature is on average 5-10  $^{\circ}$  C higher in the coastal belt
- A better climate, better living conditions
- Relief (in the hinterland are the Scandinavian mountains, hilly and mountain relief)
- The hinterland is under a taiga on Kolya and north of Scandinavia

• The land in the interior of these peninsulas is marshy (swampy)

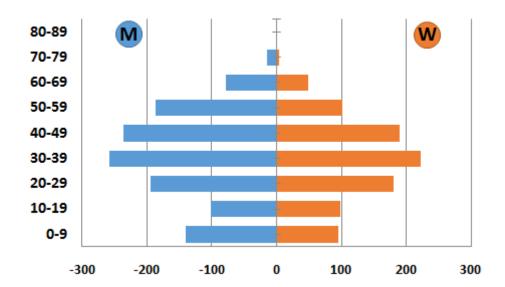
(each correct answer 0,5 points)

B)

- Sami (Lapps or Laplanders)
- Finno-Ugric group of people
- Protestantism, Orthodoxy, local traditional beliefs / (Christianity, local traditional beliefs) (it is enough to write two religions)

(each correct answer 0,5 points)

C)



D)

### **Analysis**

The sex-age structure of Svalbard is asymmetrical, as can be seen from the data given in the table, as well as from the population pyramid. The majority of the population are men (56.3%), while the share of women is 43.7%. The share of the young population is 20.2%, the middle- aged 73%, and the old 6.8%.

(correct answer 1 point)

## **Explanation**

The archipelago is located in latitudes and climatic conditions that are unfavorable for living. However, there are large reserves of coal. Due to unfavorable living and working conditions, the miners' work is remarkably paid, and most of the workforce is made up of miners. For this reason, the population structure is asymmetrical. The archipelago is inhabited exclusively for the existence of a mine, which is why the number of elderly people living here is extremely small (especially retired people, people who are no longer capable of working). Also, the younger population is smaller, because some part of the workers comes alone, without their families.

(correct answer 2 points)

**3.** 

A)

- Onto land: need warm water (to provide energy), mention of role of latent heat, so energy source cut off
- South: oceans become cooler, so less energy to power the cyclone

(each answer 1 point)

B)

- Cyclones are strongest at the coast
- Many coastal areas densely populated
- Low-lying areas liable to flooding from heavy rainfall
- Low-lying areas liable to flooding from storm surges
- As strong winds create large waves
- Low pressure raises sea level

C)

- Less educated about coping with a cyclone
- Houses less strong
- Technology for advance warning less advanced
- Warnings may not get through to people
- Fewer (if any) cyclone shelter
- Search, rescue, medical facilities less good
- Poor communication system
- Evacuation less likely

4.

A)

- 1. Fluvial erosion/ River erosion
- 2. Abrasion
- 3. Eolian/ wind erosion
- 4. Glacial erosion
- 5. Landslide

(each correct answer 0,5 points)

B)

- High concentration of clays in geological survey
- Deforestation
- Illegal buildings
- High precipitation in short period

(each correct answer 0,5 points)

- River valleys
- Pot holes
- Terraces
- Meanders
- Ox-bow lake
- Peneplane
- Alluvial fans and cones
- Delta (all types)
- Waterfalls
- Gulleys/rills

(each correct answer 0,5 points)

D)

Fjord/ Fiord

(correct answer 1 point)

## **Explanation**

A fjord is formed when a glacier retreats, after carving its typical U-shaped valley, and the sea fills the resulting valley floor. This forms a narrow, steep sided inlet (sometimes deeper than 1300 metres) connected to the sea. The terminal moraine pushed down the valley by the glacier is left underwater at the fjord's entrance, causing the water at the neck of the fjord to be shallower than the main body of the fjord behind it.

(correct answer 1 point)

5.

A)

Civilization on the map	Year	Name of civilization
В	Around 3.500 years BCE	SUMER
A	Around 3.100 years BCE	EGYPT
С	Around 2.600 years BCE	HARAPPA (MOHENJO –
	-	DARO)
D	Around 2.000 years BCE	CHINESE

(2, 3 correct answers 0,5 points, 4 correct answers 1 point, 5 correct answers 1,5 points, 6 correct answers 2 points)

B)

<u>Compass, Gunpowder, Printing, Paper (making) – The most important</u> Bell, Brick, Banknote, Dominoes, Fireworks, Acupuncture...

(each correct answer 0,5 points)

C)

#### Rivers and soil.

All of these civilizations are "river valley civilization" – they were developed and situated along the rivers. River is reliable source of water for development of agriculture and other human activities. Rivers annual floods enabled regularly enrichment of the fertile soil, and increasing of crop grain beyond what was needed for sustainable development. These conditions allowed the other members of society to engage in non-agricultural activities and develop their own civilization. Also, the rivers were the most frequent transport routes (for the people, resources and products) which affected the development of trade. Boats could carry heavy loads, and river currents helped moving boats that were traveling down the river. Water from the rivers was also used for drinking, cooking, washing and others elementary human activities.

### Relief.

The relief around main rivers also influenced creations of the first civilizations in these regions. Vast desert areas (in Mesopotamia and Egypt), huge mountain chains and high plateaus (especially around China and Harappa civilizations), and sea border (Egypt, China and Harappa) made these areas geographically isolated. Some civilizations were more, some of them were less isolated. For example, the river valleys of Nil, Tiger, Euphrates and Indus are more open to the surroundings areas, than Huang He. On the other side, because of favourable combination of natural conditions, river valleys in this latitude are suitable for development of settlements and human activity.

#### Climate.

A high average annual air temperature influenced the duration of vegetation period. There are two to three harvests per year in these regions that enable enough food for all member of society.

(each answer 1 point)

**6.** 

A)

Urban density is number of people inhabiting/living in a city/urbanized area.

B)

Mongolia, Cambodia, Paraguay, Uruguay, Congo, Liberia, Panama, Armenia, Puerto Rico, Burundi, Togo, Guinea-Bissau, Djibouti, Kuwait, Trinidad and Tobago

(3 correct answers 1 points, 4,5 correct answers 1,5 points, 6 correct answers 2 points)

C)

The countries of Africa and Latin America are <u>mostly underdeveloped or developing countries</u> and their development is based on the development of their capital/largest city. These cities attract people because of: <u>more (and better) jobs; hospitals and health care; better living standards/quality of life; cities are social and financial centers; (better) <u>education</u>—schools and universities; <u>slums</u>, which have large concentration of people, are (in most cases) located in country's biggest city.</u>