

Sample tasks – reading: GEOGRAPHY

1. Logical connections: Supply the missing phrases

Quality of cartographic message depends on 1..... and symbols. During map design process, symbol specification is often uncertain. Graphical signs 2..... to tastes, needs and context of use. Colours use is of special relevance to environmental, topographic and thematic maps whose primary purpose is to 3..... of main characteristics conveyed by the map. Communication in colour is more effective if the 4..... . Colours choices, as mistakes or misunderstandings, are often highlighted: too many colours, 5..... , too meaningful colours, etc. involving disturbances when readers try to 6..... .

- A colours used are appropriate
- B choices may be unsuitable
- C understand its cartographic message
- D create a mental image
- E kinds of chosen data
- F colours un-adapted to user's data

2. Terms: Read the text and put the missing words in the gaps. There are more words than gaps, you will not need three of them.

<i>located</i>	<i>sideways</i>	<i>creates</i>	<i>divided</i>	<i>zones</i>	<i>consists</i>
<i>categories</i>	<i>boundaries</i>	<i>moved</i>	<i>composed</i>		

The lithosphere (the earth's crust and the rigid upper part of the mantle) is _____ (1) into seven large and several smaller plates. The plates, which are rigid, float on the underlying semi-molten mantle (the asthenosphere) and are _____ (2) by convection currents. There are two types of plate: continental and oceanic. However, these terms do not refer to actual continents and oceans but to different types of crust or rock. Continental crust is _____ (3) of older, lighter rock of granitic type. Oceanic crust _____ (4) of much younger and denser rock of basaltic composition.

As a result of convection currents generated by heat from the centre of the earth, plates may move towards, away from, or _____ (5) along adjacent plates. It is at plate (6) _____ where earthquake, volcanic and mountain-building zones are _____ (7).

3. Synonyms: Find 1 word from the text for each description below:

The Sahara has one of the harshest climates in the world. (1) The prevailing north-easterly wind often causes sand storms and dust devils. When the wind blows towards the Mediterranean, it is known as sirocco and often reaches hurricane speeds (2) in North Africa and southern Europe. Half of the Sahara receives (3) less than 20 mm of rain per year, and the rest receives up to 100 mm per year.[36] The rainfall happens very rarely, but when it does it is usually torrential when it occurs after long dry periods.

- a) the most severe, unpleasant
- b) the most frequent, common
- c) severe, often destructive storm, esp. a tropical cyclone
- d) pouring or flowing fast, violently, or heavily

4. Logical connections: Complete the text with the phrases.

More than 100 young Nigerians are teaming up with Google to add restaurants, markets, hospitals **1**..... in the Nigerian capital to Google Maps. Youth leaders say by mapping their city, they could **2**..... by attracting tourists and investors. They also see maps as a tool to improve security and reduce poverty.

In a training room in Abuja, there are almost as many laptops and smart phones as there are **3**..... . At the front of the room, young men who **4** wear green and blue T-shirts that say, “map your world,” while the Google Abuja Map-up project director, Oludotun Babayemi, explains how to do it.

In the coming week, this crowd plans to fan out across the Nigerian capital **5** and ready to upload. Babayemi says the new maps will encourage more people to visit. He says mapping Abuja **6**..... will also draw foreign investors who may otherwise be **7**..... .

- A unaware of changes in the country
- B volunteer for Internet search engine Google
- C and eventually all of Nigeria
- D boost the local economy
- E armed with tech devices
- F and other prominent locations
- G 20-something “citizen cartographers”

5. Synonyms: Find 1 word from the text for each description below:

Over the last thirty years, a migration took place in most major American cities – a migration away from the inner cities. As cities expanded in both population and size, many people decided to move away from city centers and out to the suburbs. Probably the most important reason for this change was the opportunity of owning a house in the suburbs. Construction companies built tract homes: cheap and often prefabricated houses which were economical and within reach of middle-class families.

In recent years, however, some American cities have seen a reversal of this trend. As more and more people move out to the suburbs, the freeways and public transportation systems have become overcrowded, leading to all the miseries of heavy commuter traffic. Also, the suburbs can often be boring, faceless blocks of tract houses and shopping malls with no cultural life or entertainment. As a result, some middle-class professionals have started moving back into the city, bringing with them the resources and the initiative needed to revive the run-down city centres.

Abbreviated from Fictumová: Conversation

1 major movement of people or animals

2 grew

3 already partially built

4 change in direction

5 things that make you unhappy

6 money and materials

7 return to life

6. Terms: Complete the text with the missing words. There are two extra words which will not be used.

vapor	pollutants	volume	gases	particulate
molecules	constituents	various		

The air of the atmosphere is a mixture of many 1 _____. In addition, the air holds many suspended liquid droplets and solid particles. However, only two gases make up about 99% of the 2 _____ of air near the Earth. This air is composed primarily of nitrogen (78%) and oxygen (21%), with nitrogen being almost four times as abundant as oxygen. Atmospheric nitrogen and oxygen are diatomic (two-atom) 3 _____, N₂ and O₂. The other main 4 _____ of air are argon Ar (0.9%) and carbon dioxide CO₂ (0.03%). Minute quantities of many other gases are found in the atmosphere, along with 5 _____ matter. Some of these gases, especially water 6 _____ and carbon monoxide CO, vary in concentration, depending on conditions and locality.

7. Logical connections: Put the phrases back in the text.

From K. Kelly, Geography, p.200

Places near the equator 1 _____ because the sun shines straight down. These rays are more concentrated and 2 _____ of atmosphere than sunrays at places near the poles.

Air has weight and exerts pressure and so light, warm air tends to rise and exert low pressure.

Heavy, cold air 3 _____ and so air moves from high pressure to low pressure. There are general, prevailing patterns of moving air throughout the world called global winds.

Ocean currents are also caused by unequal heating at different latitudes. Unequal heating 4 _____ between warm and cool parts of the oceans. The global winds, caused by unequal heating, 5 _____ along in their direction. Warm ocean currents, such as the North Atlantic Drift, 6 _____ and keep harbours in high latitudes free of ice.

- A sets up convection currents
- B raise sea and air temperatures
- C help to drag the ocean currents
- D travel through a lesser depth
- E receive sunrays from almost directly overhead
- F presses down and exerts high pressure

8. Terms: Complete the text with the right words. There are two more that will not be needed.

birth	death	change	increase	migrants	decrease	immigrants	fertility
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Population Change

Natural 1 _____ in population occurs when the birth rate is greater than the death rate. When the 2 _____ rate is greater than the birth rate, there is a natural decrease. Population change may differ from the natural increase or decrease because it also takes into account 3 _____ which include emigrants and immigrants. 4 _____ rate means the number of births for every 1,000 people in a country for one year. The natural increase is found when the birth rate is measured against the number of deaths for every 1,000 people in the same year. People who move home from one country to another are called migrants. 5 _____ increase population. Emigrants 6 _____ population.

9. Logical connections: Read the text and insert the missing phrases in the right places.

Pressure has an effect 1 _____. The boiling point of water increases with increasing pressure. Boiling is the process by which energetic molecules escape from a liquid. This energy is gained from heating. If the pressure is greater above the liquid, the molecules must have more energy to escape, and the liquid has to be heated 2 _____ to take place.

Normally, when a heated liquid approaches the boiling point 3 _____, pockets of energetic molecules form gas bubbles. When the pressure due to the molecular activity in the bubbles is great enough, or greater than 4 _____, the bubbles rise and break the surface. We then say that the liquid is boiling. In this sense, boiling is a cooling mechanism for the water. Energy is removed, and the water's temperature cannot exceed 100°C.

In a sealed pressure cooker, 5 _____, causing the boiling point to increase. The extra pressure is regulated by a pressure valve, which allows vapor to escape. Hence the water content of the cooker boils at a temperature greater than 100°C and the cooking time is reduced.

At mountain altitudes, the boiling point of water may be several degrees less than at sea level. For example, at the top of Pike's Peak (elevation 4300m), 6 _____ to the point where water boils at about 86°C rather than at 100°C. Pressure cookers 7 _____ – if you want to eat on time. It is interesting to note that for high altitudes, cake mixes contain less baking powder than those at or near sea level. The baking powder supplies gas to “raise” a cake. If normal cake mixes were used at high altitudes, the cake 8 _____.

- A come in handy at high altitudes
- B the atmospheric pressure is reduced
- C would rise too much and could explode
- D to a higher temperature for boiling
- E in an open container
- F the pressure on the surface of the liquid
- G on the boiling point of water
- H the pressure above the liquid is increased

10. Complete the missing terms. There are three extra words that will not be needed.

<i>exceeding</i>	<i>determined</i>	<i>fluctuated</i>	<i>contribution</i>	<i>mortality</i>	<i>deaths</i>
	<i>nonexistent</i>	<i>siblings</i>	<i>insurance</i>	<i>education</i>	<i>increased</i>

In pre-industrial society, death rates and birth rates were both high, and 1..... rapidly according to natural events, such as drought and disease, to produce a relatively constant and young population. Family planning and contraception were virtually 2.....; therefore, birth rates were essentially only limited by the ability of women to bear children. Emigration depressed death rates in some special cases (for example, Europe and particularly the Eastern United States during the 19th century), but, overall, death rates tended to match birth rates, often 3..... 40 per 1000 per year. Children contributed to the economy of the household from an early age by carrying water, firewood, and messages, caring for younger 4....., sweeping, washing dishes, preparing food, and working in the fields. The total cost of raising children barely exceeded their 5..... to the household. In addition, as they became adults they become a major input to the family business, mainly farming, and were the primary form of 6..... for adults in old age. In India, an adult son was all that prevented a widow from falling into poverty. During this stage, the society evolves in accordance with Malthusian paradigm, with population essentially 7..... by the food supply. Any fluctuations in food supply (either positive, for example, due to technology improvements, or negative, due to droughts and pest invasions) tend to translate directly into population fluctuations. 8..... resulting in significant mortality are frequent.

11. Terms: Complete the text with the right words. There are two more that will not be needed.

<i>equivalent</i>	<i>cylindrical</i>	<i>projection</i>	<i>equidistant</i>	<i>globe</i>	<i>radiating</i>
<i>conformal</i>	<i>constant</i>	<i>preserving</i>	<i>longitude</i>		

A 1..... is the only way to represent the earth with constant scale throughout the entire map in all directions. A map cannot achieve that property for any area, no matter how small. It can, however, achieve 2..... scale along specific lines.

Some possible properties are:

- The scale depends on location, but not on direction. This is 3..... to preservation of angles, the defining characteristic of a 4..... map.
- Scale is constant along any parallel in the direction of the parallel. This applies for any 5..... or pseudocylindrical projection in normal aspect.
- Combination of the above: the scale depends on latitude only, not on 6..... or direction. This applies for the Mercator projection in normal aspect.
- Scale is constant along all straight lines 7..... from a particular geographic location. This is the defining characteristic of an 8..... projection such as the Azimuthal equidistant projection. There are also projections (Maurer, Close) where true distances from *two* points are preserved.

12. Synonyms: Find 1 word from the text for each description below:

A biome is different from an ecosystem. An ecosystem is the interaction of living and nonliving things in an environment. A biome is a specific geographic area notable for the species living there. A biome can be made up of many ecosystems. For example, an aquatic biome can contain ecosystems such as coral reefs and kelp forests.

Not all scientists classify biomes in the same way. Some use broad classifications and count as few as five biomes. These are forest, grassland, freshwater, marine, desert, and tundra.

Other scientists use more precise classifications and list dozens of different biomes. For example, they consider different kinds of forests to be different biomes. Tropical rain forests that are warm and wet year-round are one biome. Temperate deciduous forests—those that have cold winters, warm summers, and are dominated by trees that lose their leaves—are a different biome. Taiga forests, which are in cold regions and are dominated by cone-bearing firs and spruces, are yet another biome. Boundaries between biomes are not always sharply defined.

Biomes move as the climate changes. Ten thousand years ago, parts of North Africa were lush landscapes cut by flowing rivers. Hippopotamuses, giraffes, and crocodiles lived amid abundant trees. Gradually, the climate dried out. Today, this region is part of the Sahara Desert, the world's largest desert.

Adapted from http://education.nationalgeographic.com/education/encyclopedia/biome/?ar_a=1

- a) mutual or reciprocal influence
- b) relating to the sea
- c) exact
- d) shedding all leaves annually
- e) large, chiefly aquatic African herbivorous mammals
- f) present in great quantity, many

KEY

- 1 1E, 2B, 3D, 4A, 5F, 6C
2 1 divided 2 moved 3 composed 4 consists 5 sideways 6 boundaries 7 located
3 a) harshest b) prevailing c) hurricane d) torrential
4 1F 2D 3G 4B 5E 6C 7A
5 1 migration 2 expanded 3 prefabricated 4 reversal 5 miseries 6 resources 7 revive
6 1 gases 2 volume 3 molecules 4 constituents 5 particulate 6 vapour
7 1E 2D 3F 4A 5C 6B
8 1 increase 2 death 3 migrants 4 birth 5 immigrants 6 decrease
9 1 G 2 D 3 E 4 F 5 H 6 B 7 A 8 C
10 1 fluctuated 2 nonexistent 3 exceeding 4 siblings 5 contribution 6 insurance 7 determined 8 famines
11 1 globe 2 constant 3 equivalent 4 conformal 5 cylindrical 6 longitude 7 radiating 8 equidistant
12 a) interaction b) marine c) precise d) deciduous e) hippopotamuses f) abundant

GRAMMAR

A) Transformations:

Paraphrase the sentences by completing the gaps. Your new sentence must have the same meaning as the original one. The number of words in brackets is the number of words that you will use.

1. It is possible that Arctic rocks contain oldest remnants of the Earth.
Arctic rocks oldest remnants of the Earth. (2 words)
2. Melting and mixing processes modified the material of the early Earth.
The material of the early Earthmelting and mixing processes. (3 words)
3. It seems that the Arctic rocks contain chemicals from the time just after the Earth's origin.
The Arctic rocks chemicals from the time just after the Earth's origin. (3 w.)
4. Dr Jackson unearthed the oldest remnants of our planet's beginnings.
The oldest remnants of our planet's beginnings Dr Jackson. (3 words)
5. Although they erupted only 60 million years ago, the lavas contain chemicals of a more ancient source.
Despite 60 million years ago, the lavas contain chemicals of a more ancient source. (2 words)
6. If proven, the new discovery would challenge our understanding of the early Earth.
If the conclusions, the new discovery would challenge our understanding of the early Earth. (2 words)

B) Word formation: Use the words in capital letters to complete the sentences. Change the form of words. Do not use -ing form.

1. Most prime sites are in the city centre, mainly because of its _____ . ACCESS
2. _____ land is found further out from the city centre. RESIDE
3. Central Business District has a _____ of space. SHORT
4. Further out from the centre the land values have decreased due to less _____. COMPETE
5. The 'retail revolution' led to the _____ of large edge-of-the-city shopping complexes. DEVELOP

C) Sentence transformation: Instruction as in task A)

1. The soil contracts because of very low winter temperatures.

Very low winter temperatures cause the _____ . (3 words)

2. You can find irregularly shaped polygons on the bed of a dried-up lake.

Irregularly shaped polygons _____ on the bed of a dried-up lake. (3 words)

3. It is possible that the cracks will be filled with windblown deposits.

The cracks _____ filled with windblown deposits. (2 words)

4. This process is repeated annually. In the end the wedges grow to the maximum of 1 m in thickness and 3 m in depth.

This process is repeated annually _____ grow to the maximum of 1 m in thickness and 3 m in depth. (words)

Key

A) 1 may, might, could 2 was modified by 3 seem to contain 4 were unearthed by 5 erupting only 6 were proven, were proved

B) 1 accessibility 2 Residential 3 shortage 4 competition 5 development

C) 1 soil to contract 2 can be found 3 could, may, might 4 until the wedges