

## 2017 United States Geography Olympiad - Written Examination

### General instructions -

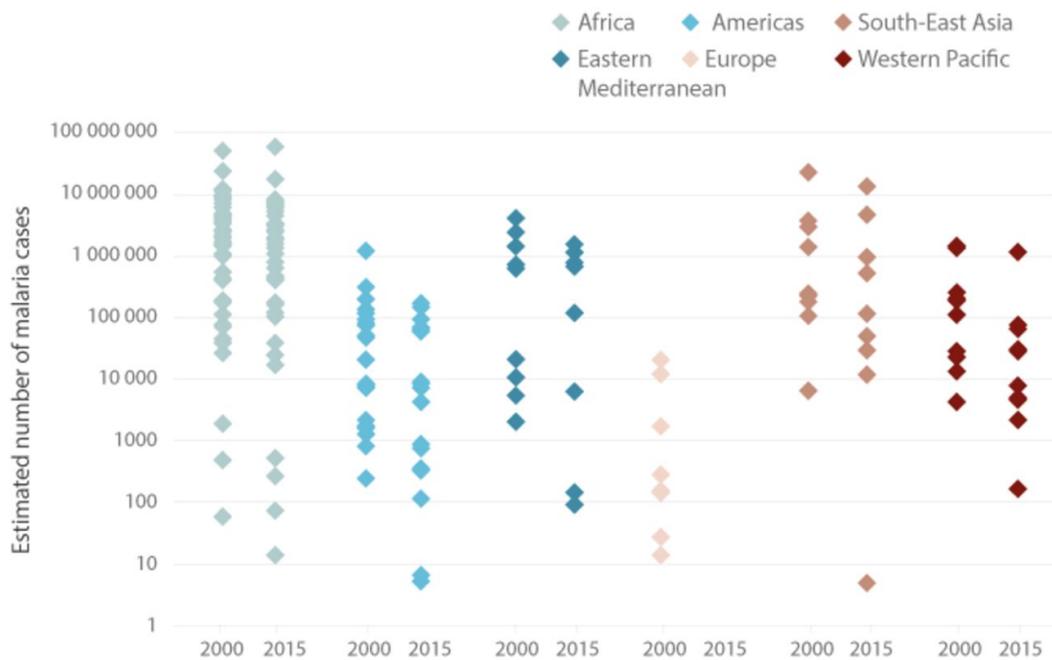
Respond to each of the following questions on the answer document provided. Only answers written in the appropriate space on the answer document will be marked. Where appropriate, you should write sentences or phrases instead of single words. If a question or section asks for a specific number of reasons or answers, give only the required number of answers specified. The examination consists of nine sections, and each section will be worth the specified number of marks. You have one hour to complete this section of the examination and the accompanying forty multiple choice questions.

### Section 1 - Population and Public Health [9 marks]



World Health Organization

Estimated number of malaria cases in 2000 and 2015  
By WHO Region\*



Source: WHO World Malaria Report 2015

\* Diamonds represent countries within each WHO region

© WHO. All rights reserved.

1. Given the chart above, describe and give two possible reasons for the general global trend in malaria cases between 2000 and 2015.

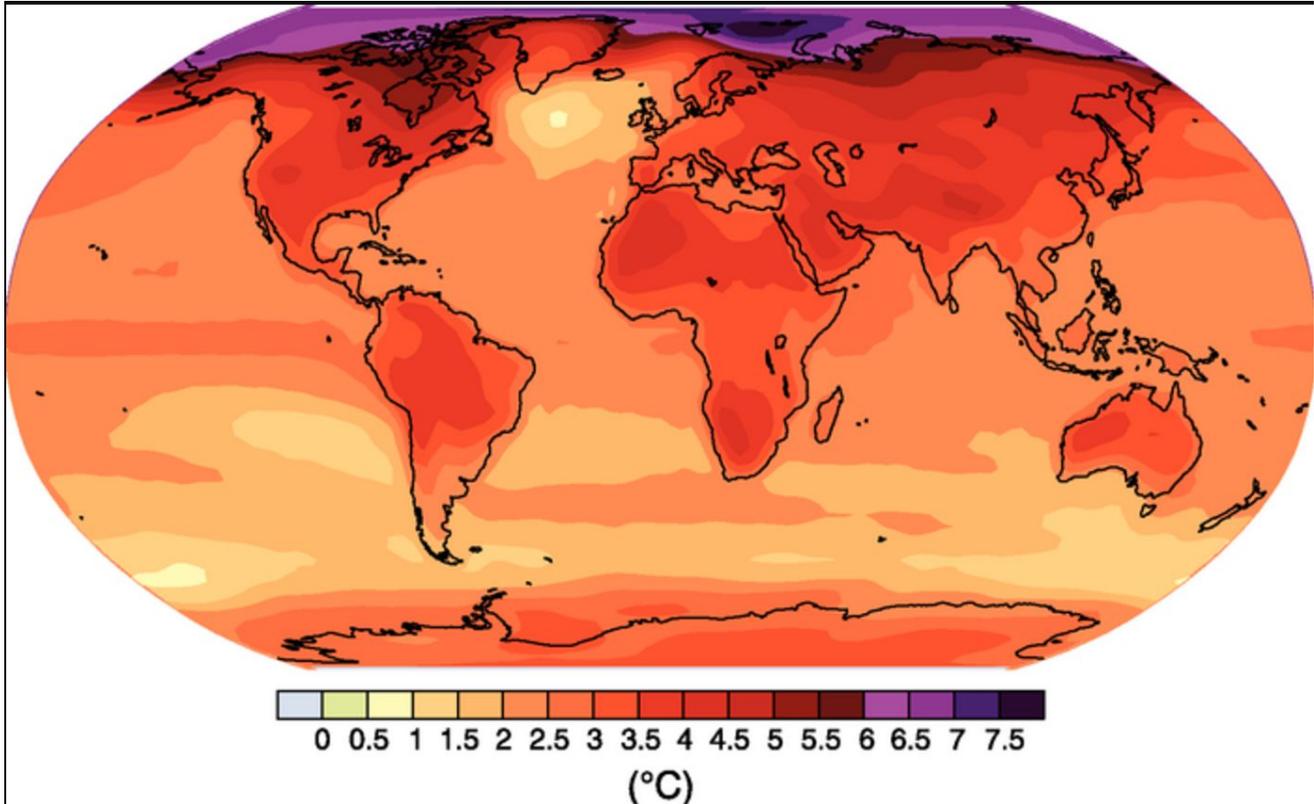
2. Describe the trend in malaria cases in Africa shown on the chart, and give two possible reasons to account for this trend between 2000 and 2015.

3. Briefly explain three possible measures governments might take to reduce the spread of infectious diseases due to global travel and tourism.

## Section 2 - Political Geography [6 marks]

1. Identify two instances during the last century in which a country has built a wall or other barrier along its border and explain the specific purpose of each structure.
2. Identify and briefly discuss two economic consequences of walls or other barriers built along national borders.

## Section 3 - Climate Geography [6 marks]



Map of projected surface temperature increase by 2099

1. Based on the information in the map provided, describe the projected patterns of surface temperature increase by 2099.
2. Explain why the arctic region is projected to have the largest increase in surface temperature over the period covered by the map. Identify two possible effects of this increase in surface temperature in the arctic on areas outside the region.

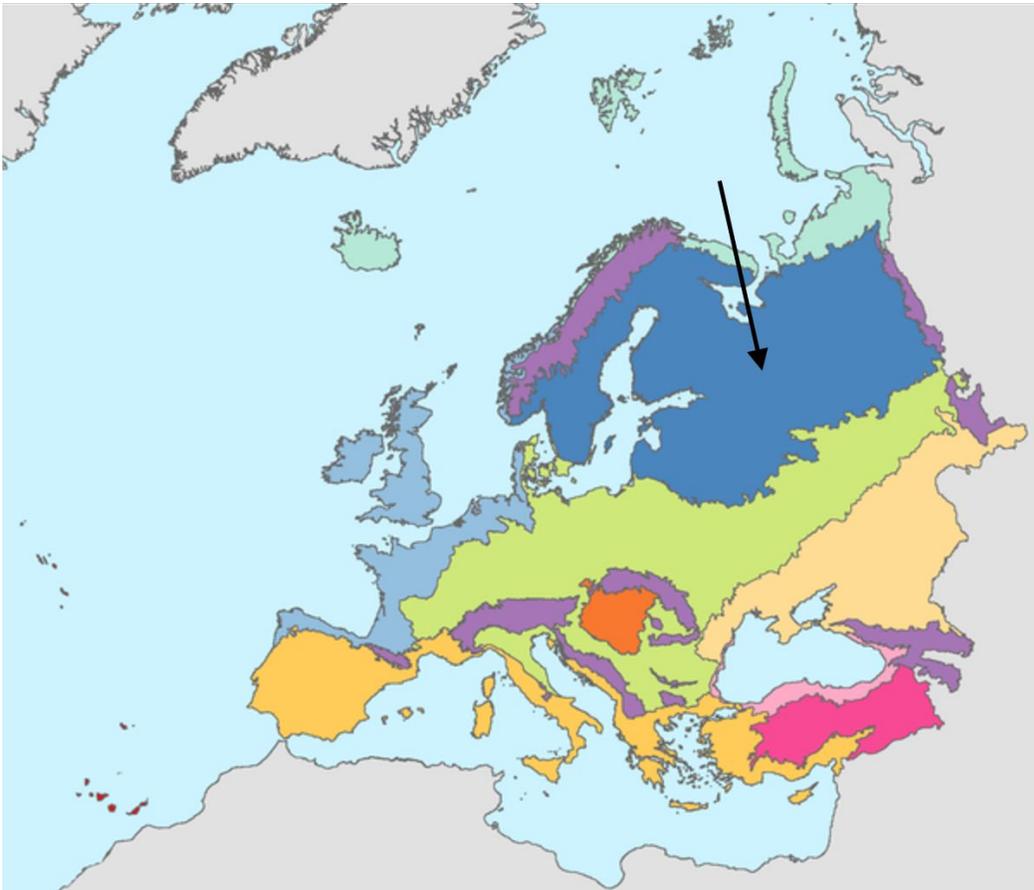
## Section 4 - Historical Geography [9 marks]

1. Identify and explain ways in which the Interstate Highway system in the United States has affected each of the following since 1960 - a) transportation, b) urban geography, c) urban demographics

### Section 5 - Urban Geography [9 marks]

1. Define the term 'smart city' and explain its relationship to modern urban development.
2. Identify two possible advantages and two possible disadvantages of incorporating 'smart city' design principles.
3. Since 2014, Singapore has strongly embraced the 'smart city' concept. Briefly discuss the governmental and geographic advantages Singapore has over other countries in implementing these principles.

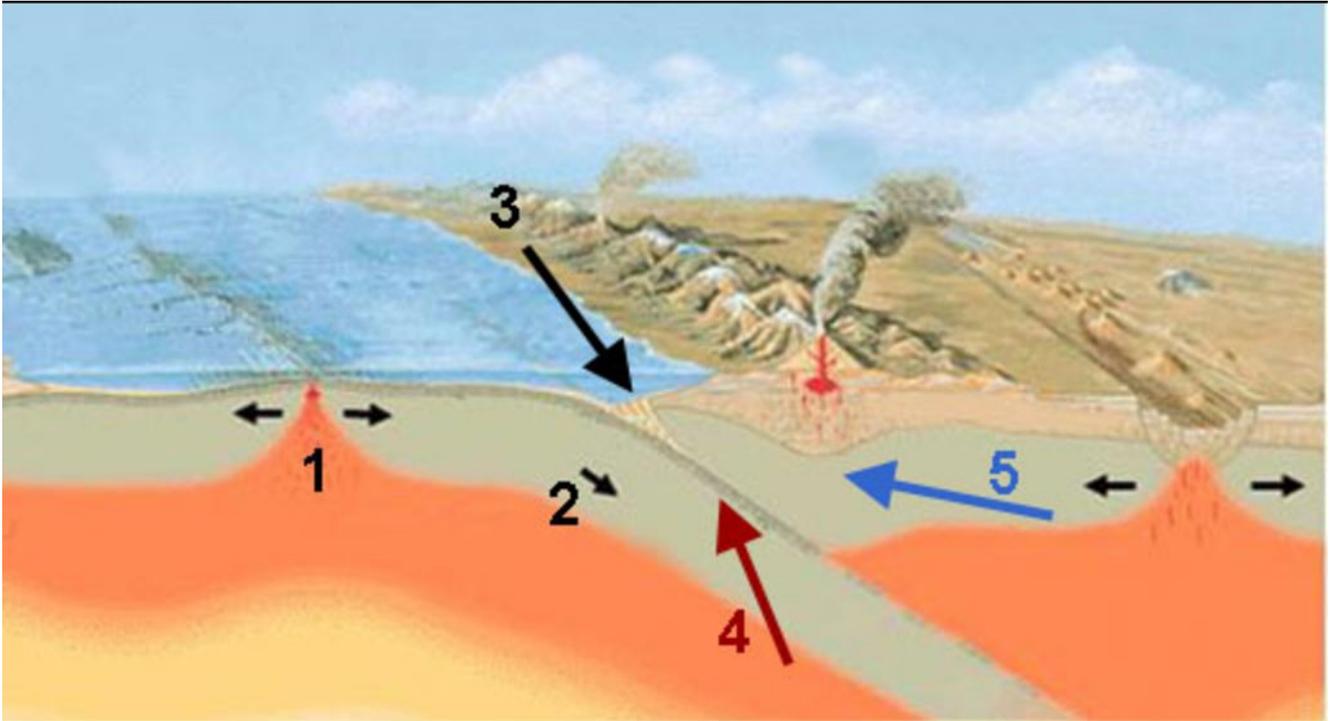
### Section 6 - Biogeography [5 marks]



Map of biogeographic regions of Europe

1. Identify the biome indicated with the arrow. What types of vegetation would typically be expected in forests of this biome.
2. Define the term krummholz. Where would krummholz typically be found in relation to the biome from part 1?

### Section 7 - Volcanology and Plate Tectonics [10 marks]



1. Given the accompanying illustration, identify by number each of the following:

- a subduction zone
- the most likely location for shallow earthquakes
- a divergent boundary

2. What type of volcano would likely be found in the region depicted in this illustration? Identify at least two characteristics of an eruption from a volcano of this type.

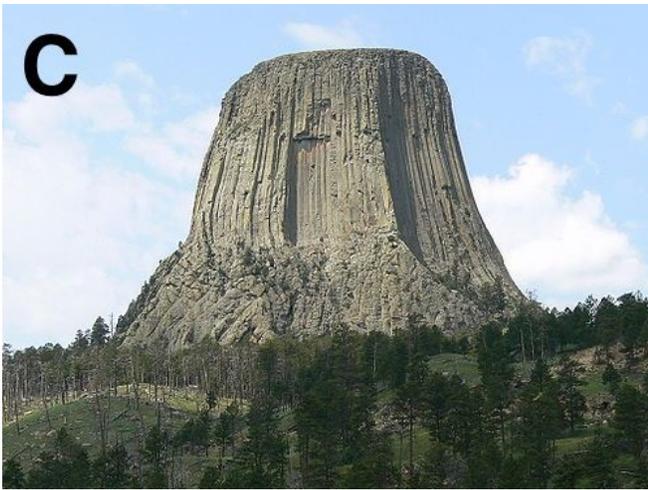
3. What geographic area or region of the United States is represented by this illustration? Identify by name the three tectonic plates depicted.

### Section 8 - Cultural Geography [7 marks]

1. Define the term lingua franca. Briefly discuss three factors that have contributed to the growing global use of English over the last century.

2. Despite the growing use of English, efforts are under way in many countries to revive lesser-used minority languages. Briefly discuss three factors behind this revival of lesser-used minority languages.

**Section 9 - Geomorphology [9 marks]**



1. Given the accompanying photographs, identify if weathering or erosion was the main cause of the formations pictured.
2. What specific type of weathering or erosion is depicted in photograph B? Briefly explain the process of this type of weathering or erosion.
3. Briefly explain the process of chemical weathering. Name two chemical processes that can be responsible for this type of weathering.