2019 United States Geography Olympiad - Written Examination
Question Packet

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 eight 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 multiple choice questions.

Section 1 – Soil Degradation [15 marks] (Refer to the images in Section 1 of the resource booklet.)

1. Briefly describe three functions of soil.

2. Identify the type of soil degradation shown in image A. Explain how human action would cause this type of soil degradation. Explain at least one method by which farmers could prevent this type of soil degradation.

3. Identify the time period of American history in which the photograph in image B was taken. Briefly explain one human cause and one natural cause of the condition shown here. Explain one measure that could prevent the type of soil degradation shown in image B.

4. Identify and explain two reasons for soil acidification caused by human actions.

Section 2 – Historical Geography [9 marks]

1. Briefly identify and explain the ways in which the development of transportation networks affected each of the following in the United States in the period from 1800 to 1860 – a) industrialization, b) agriculture, c) westward migration.

Section 3 – Geology [16 marks] (Refer to the images in Section 3 of the resource booklet.)

1. Briefly define the principle of superposition.

2. Briefly define the principle of cross-cutting relationships.

3. Identify by letter from oldest to youngest the layers and features in image 1. Given that layer C is sedimentary rock, what type of formation or feature are represented by D and E?

4. Identify by letter from oldest to youngest the layers in image 2. Briefly explain your answer.

Section 4 – Glaciers [15 marks] (Refer to the image in Section 4 of the resource booklet.)

1. Define the term continental glacier. Identify two specific locations on earth where continental glaciers are located.

2. Identify the type of glacier in the image in section 4. Identify two characteristics of this type of glacier. What landform results when ice from these glaciers retreats and seawater fills the empty space?

3. To the nearest tenth of a mile, how thick on average is the Greenland ice sheet currently? To the nearest foot, what would be the resulting global sea level rise if the entire Greenland ice sheet were to melt?

4. Define each of the following terms and explain its role in the melting of the Greenland ice sheet – North Atlantic Oscillation; ice-albedo feedback.

Section 5 – Tourism [10 marks]

1. Define the term ecotourism. Identify three positive impacts or goals of ecotourism.

2. Identify three criticisms or risks of ecotourism. Identify and explain one way in which the government of a developing country with existing ecotourism might address one of these criticisms or risks.

Section 6 – Demographics [15 marks] (Please refer to the images in Section 6 of the resource booklet.)

All of these images show demographic information about a certain European nation. Images 1 and 2 are population pyramids from 1980 and 2017. Image 2 is vital statistics from 1900 to 2015, and image 3 shows migrant stock by country of origin (immigration) or destination (emigration).

1. What country does this data represent?

2. Given the available information, what historical, political, economic and demographic factors account for the sharp population decrease demonstrated here? Be as specific as possible in the space provided and account for as much of the data represented as possible.

3. Identify and explain at least three specific public policies that the national government could undertake to reverse the demographic trends shown here.