



2026 United States Geography Championships

Free-Response Examination – Question Document

General instructions –

Respond to each of examination questions in the space provided on the Answer Document. **Only answers written in the appropriate space on the Answer Document will be marked.** Images for the exam are on the Resource Document – refer to them when necessary to respond to questions. 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 number of answers specified. Please write clearly and legibly.

Section 1 – Iceland [34 points]

Use the images in Section 1 of the Resource Document to complete the following.

1. Identify the plates marked A and B on Map 1. Identify the major geologic feature marked C on Map 1. What type of plate boundary is found at C? [4 points]
2. Briefly explain how the information shown in Map 1 results in the large amount of volcanic and geothermal activity present in Iceland. [2 points]
3. Given the information in Map 2, how far in km did Skaftafellsjökull Glacier retreat from 1890 to 1945? Measure your distance between the points indicated on the map and express your answer to the nearest tenth of a kilometer. On average, how much did Skaftafellsjökull retreat per year in that timeframe? Express your answer as a number rounded to the nearest hundredth and show your work in the space provided. [3 points]
4. Given the information in Map 2, how far in km did Skaftafellsjökull Glacier retreat from 2010 and 2021? Measure your distance between the points indicated on the map and express your answer to the nearest tenth of a kilometer. On average, how much did Skaftafellsjökull retreat per year in that timeframe? Express your answer as a number rounded to the nearest hundredth and show your work in the space provided. [3 points]
5. What is the total distance Skaftafellsjökull retreated between 1890 and 2021? Measure your distance between the points indicated on the map and express your answer to the nearest tenth of a kilometer. [2 points]
6. Identify and explain TWO environmental or economic effects of the melting of glaciers in Iceland. [4 points]
7. Given the information in the population pyramid, is Iceland's total fertility rate above or below replacement level? Does this information indicate Iceland's population currently growing or shrinking? Explain your answer in the space provided. [4 points]
8. Given the information in this population pyramid and your own outside knowledge, in what stage of the demographic transition model is Iceland currently? [1 point]
9. Given the information in the table of Iceland's 2024 energy consumption by source, construct a graph or chart in the space provided to visualize this data. Your graph or chart can be of any appropriate type and should be clearly labeled with appropriate information from the table. [8 points]
10. Given Iceland's geography and the information on the maps, what is the main source of power generation in the 'Other renewables' category? Identify and explain TWO advantages of using this particular source to generate power. [3 points]

Section 2 – Strait of Hormuz [22 points]

Use the images in Section 2 of the Resource Document to complete the following.

1. Identify the countries marked A, B, and C on Map 1. Identify the bodies of water marked D and E, and the city marked F. [6 points]
2. In the space provided, explain the importance of the Strait of Hormuz to the global energy trade. [2 points]
3. In the space provided, explain the importance of the Strait of Hormuz to imports to Middle Eastern nations. [2 points]
4. Briefly explain the significance of increasing oil prices on each of the following – agriculture and food production in the United States, consumer spending in countries throughout the world, the overall economy of Asian nations like Japan. Be as specific as possible in the space provided. [6 points]
5. Briefly describe TWO practical ways that Middle Eastern states like Saudi Arabia could, in the future, develop ways to diminish the importance of the Strait of Hormuz for shipping and trade. [4 points]
6. Mahda and Nahwa, shown at G on Map 1 and in detail on Map 2, are territories of countries B and C respectively. What is the name given to a territory like Madha that is separated from the country that owns it? What is the term for an area like Nahwa that is surrounded by both the territory of its own country and the territory of another? [2 points]

Section 3 – Thailand [19 points]

Use the images in Section 3 of the Resource Document to complete the following.

1. As seen in Map 1, much of Thailand has a tropical savanna climate while the southern and eastern parts of the country have a tropical monsoon climate. Briefly explain the difference between these two climate types. [2 points]
 2. Briefly explain in the space provided the effect of climate change on tropical monsoon climates in places like southern Thailand. [2 points]
- Bangkok is considered to be at extreme risk from rapid population growth and climate change, as well as natural disasters like earthquakes even though it is not on a fault line. This is due in part to its low elevation and coastal location, but also to its geology, which is characterized by soft marine clay situated on top of a large aquifer.
3. Define the term subsidence. Given the information above and in Map 2, explain why subsidence is such a serious issue in Bangkok. Be as specific as possible in the space provided. [3 points]
 4. Given the information above and in Map 2, explain how and why the combination of geography, geology, climate change, and development make Bangkok so vulnerable to sea level rise. Be as specific as possible in the space provided. [2 points]
 5. Given the information above and in Map 2, explain how and why the combination of geography, geology, climate change, and development put Bangkok at greater risk from strong earthquakes occurring in places like northern Thailand. [2 points]
- Tham Luang Nang Non is a karstic cave system in northern Thailand made famous by the 2018 rescue of a junior soccer team from a monsoon flood in the cave.
6. Define the term karst. [2 points]
 7. Define the term limestone pavement and explain how areas of limestone pavement form in karstic areas. [2 points]
 8. In the space provided, describe the formation of karstic cave systems like Tham Luang Non. [2 points]
 9. Hills called mogotes are often found in karstic areas in southern Thailand. Define the term mogote. [2 points]

Section 4 – Historical Geography [5 points]

1. How did the Great Migration of African Americans in the United States result in both cultural diffusion and social change in the period from the 1910s to 1970s? Be as specific as possible in the space provided.

Section 5 – Mountainous Landforms [8 points]

1. Define the term plateau and briefly explain at least TWO ways in which plateaus can form. [4 points]
2. Define the term mesa and briefly explain how mesas are formed. [2 points]
3. Define the term butte and briefly explain how buttes are formed. [2 points]

Section 6 – Earthquakes [12 points]

1. What scale is generally used to measure seismic magnitude in the United States? What scale is generally used to measure seismic intensity in the United States? In the space provided, explain the difference between the intensity and magnitude of an earthquake. [4 points]
2. Define the terms P-wave and S-wave. Identify three main differences between P-waves and S-waves. [4 points]
3. Define the term soil liquefaction and briefly describe how an earthquake causes soil liquefaction. [2 points]
4. Briefly describe how a megathrust earthquake is caused at a convergent plate boundary. [2 points]

This is the end of the exam.