

2022 International Geography Championships - Written Examination (High School)

Student Name _____ Country OR State _____

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. 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 – population pyramids

Refer to the three images in section 1 of the resource sheet in your responses. These images are population pyramids of certain counties within the United States.

1. Identify by number the population pyramid that shows a county with a university. Briefly explain WHY you believe this pyramid shows a county with a university. Briefly explain how the pyramid of this county would change if the college was not in session.
2. Identify by number the population pyramid with a rapidly growing population. Briefly explain WHY this pyramid shows a growing population. Briefly explain how the population pyramid of a country like Japan would look different than the pyramid you chose.
3. Identify by number the population pyramid that shows a county with a military base. Briefly explain WHY you believe this pyramid shows a county with a military base. Would the pyramid be different if the county had a prison instead of a military base? Briefly explain how and why or explain why not.
4. Briefly explain how the Demographic Transition Model predicts education and income level will affect birth rate.

Section 2 – earthquakes and tsunamis

Refer to the map in section 2 of the resource sheet in your responses. This map shows information about the 2011 Tohoku earthquake and tsunami.

1. Based on the information on the map, describe the location of the epicenter of the earthquake in relation to the location of Tokyo. What are the approximate coordinates of the epicenter of the earthquake?
2. Identify and briefly explain the type of earthquake that occurred and identify the type of plate boundary present.
3. Briefly explain how a powerful earthquake like this one causes a tsunami.
4. Briefly explain two ways a tsunami is different from a normal wave.
5. Answer the following questions.
 - a) What other major environmental disaster occurred as a result of the 2011 Tohoku tsunami?
 - b) What international body oversees such accidents?
 - c) What is the only other similar accident that has occurred since 1945?
6. Identify at least three environmental consequences of either of the two accidents referenced in question 5.

Section 3 – the rock cycle and lithography

Refer to the diagram in section 3 of the resource sheet in your responses.

1. Identify the rock types or materials indicated by numbers 1-4.
2. Identify the processes indicated by letters A-D.
3. Which of the major rock types can become magma? What is the process by which this occurs? Which type of rock results when magma solidifies?
4. Briefly explain the role of water in the rock cycle with specific reference to processes and types of rock.
5. What material results from the weathering or erosion of any type of rock exposed to the atmosphere? What type of rock results from the lithification of this material?

Section 4 – biomes and climatograms

Refer to the images in section 4 of the resource sheet in your responses. These images show climatograms of five different biomes. Lines indicate average temperature in Celsius and bars indicate precipitation in cm.

1. Identify the biomes represented by each of these climatograms.
2. Which of these climatograms would be most similar to that of a monsoon forest biome? In what ways would be monsoon forest climatogram be similar and in what ways would it be different?
3. What is the average monthly rainfall in images 2, 3 and 5? What is the average monthly temperature in images 2, 3 and 5?
4. Identify by number the climatogram that would most closely match each of the following areas (some numbers may be used more than once and some may not be used) - northern Siberia, the veldt of South Africa, northern France, the Great Plains of the United States, central Egypt
5. In a climatogram for a tropical rainforest area located in Brazil, what would be the average monthly temperature in Celsius and average monthly rainfall in cm?

Section 5 – world religions

Refer to the image in section 5 of the resource sheet in your responses. This infographic shows major world religions by size and distribution.

1. Using the information in the image, identify the religious affiliations indicated by numbers 1-5.
2. What is the only country in the world that is majority Jewish?
3. What specific denomination is practiced by a majority of people in each of the following nations – Russia, Mexico, Iran, Italy, Turkey
4. In Japan, a majority of people identify with what two religions, with many adherents observing both at the same time?
5. Briefly explain the presence of the large amount of blue in each of the following regions – North and South America, Sub-Saharan Africa
6. What religious affiliation is the fastest growing among millennials and members of 'Generation Z' in the United States? What would account for the large percentage of that same religious affiliation in China?

Section 6 – fluvial landforms

Refer to the image in section 6 of the resource sheet in your responses. This image shows landforms created by rivers.

1. At which number on this diagram would natural levees form? Would these levees form by deposition or erosion? Briefly explain the process by which these levees would form.
2. Which number on this diagram indicates an oxbow lake? Briefly explain the process by which an oxbow lake would form.
3. Which number on this diagram indicates a backswamp? Would backswamps form by deposition or erosion? Briefly explain the process by which a backswamp would form.
4. Which number on this diagram indicates a Yazoo stream? What is the term for the place where a Yazoo stream joins the main river?
5. Define the term meander. Briefly describe the process by which rivers form meanders.

Section 7 – cities

Consider the quotation below in drafting your response to the question in this section.

“A city street equipped to handle strangers, and to make a safety asset, in itself, out of the presence of strangers, as the streets of successful city neighborhoods always do, must have three main qualities:

First, there must be a clear demarcation between what is public space and what is private space. Public and private spaces cannot ooze into each other as they do typically in suburban settings or in projects.

Second, there must be eyes upon the street, eyes belonging to those we might call the natural proprietors of the street. The buildings on a street equipped to handle strangers and to insure the safety of both residents and strangers, must be oriented to the street. They cannot turn their backs or blank sides on it and leave it blind.

And third, the sidewalk must have users on it fairly continuously, both to add to the number of effective eyes on the street and to induce the people in buildings along the street to watch the sidewalks in sufficient numbers. Nobody enjoys sitting on a stoop or looking out a window at an empty street. Almost nobody does such a thing. Large numbers of people entertain themselves, off and on, by watching street activity.”

- Jane Jacobs, *The Death and Life of Great American Cities* (1961)

1. Given the information in the passage and your own outside knowledge, answer the following in a well-developed short essay.

What does Jacobs believe is the significance of streets and sidewalks in city life? How does her view inform current models of urban planning, including things like views on mixed-use developments and density in urban areas. Be as specific as possible in the space provided.