2018 United States Geography Olympiad - Written Examination (Elementary)

Student Name _____   School _____

General instructions - Respond to each of examination questions in the space provided. Only answers written in the appropriate space on the answer document will be marked. Please write clearly and legibly.

Section 1 - [10 points]

Use the pictures in section 1 and the word bank below to complete the following. Every word in the bank will not be used. Some words may be used more than once.

cars	power plants	cows	horses
carbon dioxide	CFCs	global warming	sea level rise

1. [6 points] Some of the things in these pictures are significant contributors to _____,

which is the increase of average temperatures around the world. Of the four things pictured,

_____, _____, and _____ all produce significant

greenhouse gas emissions. _____ do not contribute very much to greenhouse gas

production. _____ are one of the largest biological sources of methane, which is one

of the worst greenhouse gases.

2. [4 points] Answer the following questions by circling T or F for each statement.

Power plants using renewable sources cut down on pollution	T	F
Wetlands are also a major source of methane in the atmosphere	T	F
Cars with internal combustion engines produce carbon dioxide	T	F
Volcanic eruptions are also a source of greenhouse gases	T	F

Section 2 - [10 points]

Use the pictures in section 2 and the word bank below to complete the following. Every word in the bank will not be used. Some words may be used more than once.

dormant	active	shield	Molokai
Hawaii	hydrothermal vent	hot spot	tectonic plate

1. [5 points] These photos show the recent volcanic eruption on the island of _____. This island chain was created by a _____ moving over a _____ in the Earth's mantle. Almost all of the _____ volcanoes are in the south and east of this island chain, while the _____ are on the smaller islands in the north and west.

4. [5 points] Answer the following questions by circling T or F for each statement.

The volcano pictured is usually dormant and has not erupted for many years	T	F
Volcanoes are very important to the mythology and culture of Hawaii	T	F
This volcano has been a major tourist attraction in the state for decades	T	F
People live near volcanoes for cultural, economic and religious reasons	T	F
There are very few earthquakes in this area of Hawaii	T	F

Section 3 - [10 points]

Use the picture in section 3 to complete the following.

1. [1 point] Circle the main cause of the landforms in the picture – humans   wind   glaciers

2. [3 points] Identify each of the following landforms on the photo using X, Y, and Z.

Arête - _____   U-shaped valley - _____   Cirque - _____

3. [3 points] Answer the following questions by circling T or F for each statement.

These landforms would likely be found in Australia	T	F
Drumlins might also be found near these landforms	T	F
This area might also contain a paternoster lake	T	F

4. [3 points] What is one type of recreational activity people might do in this area during the summer?
What is one type of recreational activity people might do in this area in the winter? What type of weather
is this area likely to have in the winter?

_____

_____

_____

Section 4 - [10 points]

Use the pictures in section 4 and the word bank below to complete the following. Every word in the bank will not be used. Some words may be used more than once.

| corn | hand | subsistence | wheat |
| irrigation | rice | machines | commercial |

1. [6 points] In the top picture, _____ is being harvested, while in the bottom picture, people are planting _____. The top picture shows a _____ farm, which is a large-scale farm that uses _____ like tractors and combines. The bottom picture shows a _____ farm, where most of the work is done by _____.

2. [4 points] Answer the following questions by circling T or F for each statement.

Commercial agriculture often uses irrigation	T	F
Both commercial and subsistence agriculture can be sustainable	T	F
Subsistence agriculture usually involves large amounts of chemical pesticide	T	F
Commercial agriculture is most often practiced in developing countries	T	F

Section 5 - [10 points]

Use the pictures in section 5 to complete the following.

1. [1 point] What month has the highest average rainfall in Kuala Lumpur? _____

2. [1 point] What month has the highest average rainfall in London? _____

3. [1 point] What is the highest average temperature (in degrees Celsius) in London? _____

4. [3 points] Answer the following questions by circling T or F for each statement.

Paris, France has a climate graph that looks very similar to London	T	F
Temperatures often dip below 70 degrees Fahrenheit in Kuala Lumpur	T	F
Kuala Lumpur has a tropical rainforest climate	T	F

Look at the diagram of a certain kind of precipitation in section 5 and answer the following questions.

5. [1 point] Circle the type of precipitation shown in this diagram – orthographic   convectional   cyclonic

6. [3 points] Match the following descriptions with the correct steps in the diagram (labeled X, Y, and Z). One of the descriptions will not be used.

1	Air near the ground is warmed and rises.
2	Condensation occurs, resulting in rain and storms.
3	A warm air mass and a cold air mass meet.
4	Energy from the sun warms the ground.

X - _____   Y - _____   Z - _____