

Riviera International Academy

Assignment-2077

(Ashad 21, 2077, Sunday)

Class: Nine Date:- _____ Name:- _____

Subject – HPE

Climate change

Wikipedia defines climate as follows:

Climate encompasses the statistics of temperature, humidity, atmospheric pressure, wind, rainfall, atmospheric particle count and other meteorological elements in a given region over a long period of time. Climate can be contrasted to weather, which is the present condition of these same elements and their variations over shorter time periods.

Climate may be inherently variable as evidenced by the irregularity of the seasons from one year to another. This variability is normal and may remain partially understood. It is related to changes in ocean currents, volcanic eruptions, solar radiation and other components of the climate system. In addition, our climate also has its extremes (such as floods, droughts, hail, tornadoes and hurricanes), which can be devastating. However, in recent decades, a number of indicators and studies show more and more evidence of climate warming across the globe. A disturbing phenomenon that challenges human habits and activities which are responsible for greenhouse gas emissions.

The green house effect

The greenhouse effect is the process by which absorption and emission of infrared radiation by gases in the atmosphere warm a planet's lower atmosphere and surface. It was proposed by Joseph Fourier in 1824 and was first investigated quantitatively by Svante Arrhenius in 1896.

Naturally occurring greenhouse gases have a mean warming effect of about 33 °C (59 °F). But Human activity since the Industrial Revolution has increased the amount of greenhouse gases in the atmosphere, leading to increased radiative forcing from CO₂, methane, tropospheric ozone, CFCs (chlorofluorocarbon) and nitrous oxide. The concentrations of CO₂ and methane have increased by 36% and 148% respectively since 1750. These levels are much higher than at any time during the last 650,000 years, the period for which reliable data has been extracted from ice cores. Over the last three decades of the 20th century, GDP (Gross Domestic Product) per capita and population growth were the main drivers of increases in greenhouse gas emissions. CO₂ emissions are continuing to rise due to the burning of fossil fuels and land-use change.

Consequences of global warming

There are two major effects of global warming: the increase of temperature on the earth by about 3° to 5° C (5.4° to 9° Fahrenheit) by the year 2100 and Rise of sea levels by at least 25 meters (82 feet) by the year 2100. Other consequences are listed below:

- Sea levels are rising due to thermal expansion of the ocean, in addition to melting of land ice.
- Amounts and patterns of precipitation are changing.

- The total annual power of hurricanes has already increased markedly since 1975 because their average intensity and average duration have increased.
 - Changes in temperature and precipitation patterns increase the frequency, duration, and intensity of other extreme weather events, such as floods, droughts, heat waves, and tornadoes.
 - Higher or lower agricultural yields, further glacial retreat, reduced summer stream flows, species extinctions.
 - Diseases like malaria are returning into areas where they have been extinguished earlier.

A. Answer the following questions:

- a) What is climate change?
- b) What are consequences of climate change?
- c) What did you understand by global warming?

B. Tick the correct answer.

1. Climate is by definition variable.
 - a. true
 - b. false
2. Climate change observed in the last decades is natural.
 - a. true
 - b. false
3. Global warming is caused by industrialization.
 - a. true
 - b. false
4. Greenhouse effects have no impacts on our health.
 - a. true
 - b. false

Subject- Opt. Mathematics

- a. If $P(2, 5)$ and $Q(-3, 4)$ are the ends of line segment PQ , find the co-ordinates of the image P' and Q' under the enlargement with centre at origin and scale factor -2 .
- b. $A(1, 3)$, $B(4, 1)$ and $C(3, 5)$ are the vertices of $\triangle ABC$, find the co-ordinates of the vertices of image of $\triangle ABC$ under the enlargement with centre $O(0, 0)$ and scale factor 2 .

$P(-4, 6)$, $Q(-2, 2)$ and $R(0, 4)$ are the vertices of $\triangle PQR$. Find the image of $\triangle PQR$ under the enlargement with centre $O(0, 0)$ and the given scale factor.

- a. 2
- b. -1
- c. $\frac{1}{2}$
- d. -2

Draw $\triangle PQR$ and its image on the same graph paper in each case.

विषय - नेपाली

नेपाली व्याकरण कक्षा ८ बाट शब्द निर्माण अन्तर्गत प्रत्ययबाट कम्तीमा २५ शब्द बनाउनुहोस् ।

Subject- Science

1. Find the valency of the elements given below using electronic configuration on the basis of sub shell.
a) carbon b) sulphur c) magnesium d) potassium e) fluorine
2. Give a description of valence electron. Find the number of valence electrons of oxygen, aluminum, chlorine and calcium.
3. What is compound? Write any two differences between molecule and atom.
4. What is meant by radical? Write any five examples with their valencies.

The End.