

Model answer G.6 march revision

1. Choose the correct answer:-

- At the top of the mountain, the atmospheric pressure is and the temperature is compared to the bottom of the mountain.
a. **Lower - lower** b. higher - higher c. higher - lower d. lower - higher
- A rain shadow is an area that is formed behind a.....
a. Tree b. **mountain** c. building d. bridge
- If the temperature at the bottom of a mountain is 15°C, this means it may reach..... °C at the top of this mountain.
a. 30 b. 25 c. 20 d. **2**
- Water vapor in the atmosphere can condense and form.....
a. Air b. **clouds** c. sunlight d. wind

2. Put (✓) or (x):-

- People in desert areas face a lot of challenges in desert farming. (✓)
- Precipitation occurs after condensation of water vapor in the sky. (✓)
- The properties of the atmosphere at the top of the mountain and at its bottom are similar (x)
- When the hot and humid air meet the cold and dry air, the hot air rises (✓)

3. Write the scientific terms of each of the following:-

- A scientist who studies the atmosphere to understand Earth's weather (**meteorologist**)
- A side of mountain ranges at coastal regions that faces the coast (**a wet side**)

- A side of mountain ranges at coastal regions in which the rain shadow phenomenon occurs (**a dry side**)

4. Give reason for:-

- Sometimes people prefer to live in desert land instead of cities.
Duo to the fast population growth in cities

5. What happen to.....?

- The atmospheric pressure, as we move up toward the top of a mountain.
The atmospheric pressure decreases

6. complete the following sentence:-

- The amount of rain that falls on deserts **less** than that which falls in other biomes
- The scientist who studies the earth's atmosphere is called **meteorologist**
- Farmers in desert may use the **solar** energy produced from the sun to power their farms

4. When the hot and humid air meet the cold and dry air, the **hot** air rises

Exam on lesson 2

1. Choose the correct answer:-

- The barometer is used to measure.....
a. air temperature. **b. atmospheric pressure** c. mass. d. length.
- Heat transfers from the..... object to the..... object.
a. big - small b. small - big **c. hot-cold** d. cold-hot
- Land heats up..... and cools down..... compared to that of water.
a. **quickly - quickly** b. slowly - slowly d. slowly - quickly c. quickly - slowly
- If the temperature of the sand in a desert is 50°C at noon, its temperature may reach ... °C at night.
a. **20** b. 60 c. 70 d. 80

2. Put (✓) or (x):-

- The sand absorbs heat slower than water during daytime. (**x**)
- Sand cools down in a shorter time than sea water during nighttime. (**✓**)
- Mapping data allows meteorologists to represent data about weather conditions. (**✓**)

3. Write the scientific terms of each of the following:

- A scientist who studies the Earth's atmosphere and forecasts the weather. (**meteorology**)
- A device used to measure temperature. (**thermometer**)
- It is the weight of the air above an area. (**atmospheric pressure**)

4. Give reason for:-

- At noon, we may not be able to stand barefoot on the sand of a beach in summer, but we can swim in the sea water

Because sand is heated up faster than water

5. What happen to.....?

- The temperature of a desert sand at night

The temperature of water will increase

6. Look at the following picture that shows the using of concrete in regions with hot summers and cold winters, then choose the correct answer:-



1. The temperature inside the building is regulated by absorbing energy during the day and releasing it at night
- a. Chemical
 - b. sound
 - c. **thermal**
 - d. magnetic
2. When sunlight falls on the concrete its temperature
- a. **Increases**
 - b. don't change
 - c. decreases slowly
 - d. decreases quick

Exam on lesson 3

1. Choose the correct answer:-

1. Convection is a way of transferring of heat in liquids and gases due to the difference in..... and.....
- a. mass color
 - b. shape volume.
 - c. **temperature - density.**
 - d. color temperature.
2. Heat transfers by convection in..... and.....
- a. **liquids gases.**
 - b. solids liquids.
 - c. solids - gases.
 - d. liquids space.
3. Convection currents in the atmosphere are controlled by.....
- a. precipitation.
 - b. moon's rotation.
 - c. **the energy from the Sun.**
 - d. Earth's rotation.
4. Heat is transferred through the atmosphere by.....
- a. **convection.**
 - b. conduction.
 - c. reflection.
 - d. absorption.
5. When air is heated, its changes.
- a. Mass
 - b. smell
 - c. color
 - d. **density**

2. Put (✓) or (✗):-

- 1. Cold air has more density than hot air. (✓)
- 2. By increasing the temperature of air, its density decreases. (✓)
- 3. When the air is cooled, it rises up. (✗)
- 4. Hot air rises above colder air. (✓)

5. Transfer of heat by convection occurs in solids, liquids and gases. (x)

3. Choose from column (B) what suits it in column (A):-

(A)	(B)
1. Anemometer	a. Measuring the atmospheric pressure
2. Weather radar	b. Measuring the wind speed
3. Rain gauge	c. Measuring the intensity of precipitation
	d. Measuring the amount of rain

1. b	2. c	3. d
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4. Give reason for:-

1. When air is heated, it expands.

Because the molecules of air move away from each other

5. What happen to.....?

1. We boil water in a pot on the stove. (Concerning the movement of hot water and cold water)

Hot water moves up and cold water falls down

Exam on lesson 4

1. Choose the correct answer:-

1. Extreme weather conditions include all the following, except.....

- a. drought b. flooding. c. sandstorms. **d. sunrise.**

2. The increase in the amount of rain may cause.....

- a. flooding.** b. drought. c. sandstorm. d. dust storm,

3. Drought affects all the following, except.....

- a. people. b. plants. **c. buildings.** d. animals.

4. If a driver's visibility range in sunny weather is up to 5 km, the visibility range may reach...
.....in stormy weather.

- a. 1 Km or less** b. 6 Km c. 8 Km d. 10 Km

2. Put (✓) or (✗):-

1. Heavy rain may cause drought. (✗)
2. Although flooding is harmful, it also has some benefits. (✓)
3. Sandstorms blow up from a dry area such as seas and oceans. (✗)
4. Floods may cause death of people and animals. (✓)
5. Dust storms have harmful effects on the plane engines. (✓)

3. Write the scientific terms of each of the following:-

- a. A phenomenon in which the condensed water vapor falls on the Earth's surface in the form of rain, snow, sleet or hail. (precipitation)
- b. A phenomenon in which very strong winds blow up dust that reduces the visibility during driving cars. (dust storm)

4. Give reason for:-

1. Floods have some benefits.

Because some ecosystems depend on floods such as ecosystems along the Nile

2. Sandstorms have harmful effects on human health

Because sandstorms harm the human eyes and respiratory system

5. What happen to.....?

1. Buildings when they are subjected to strong floods.

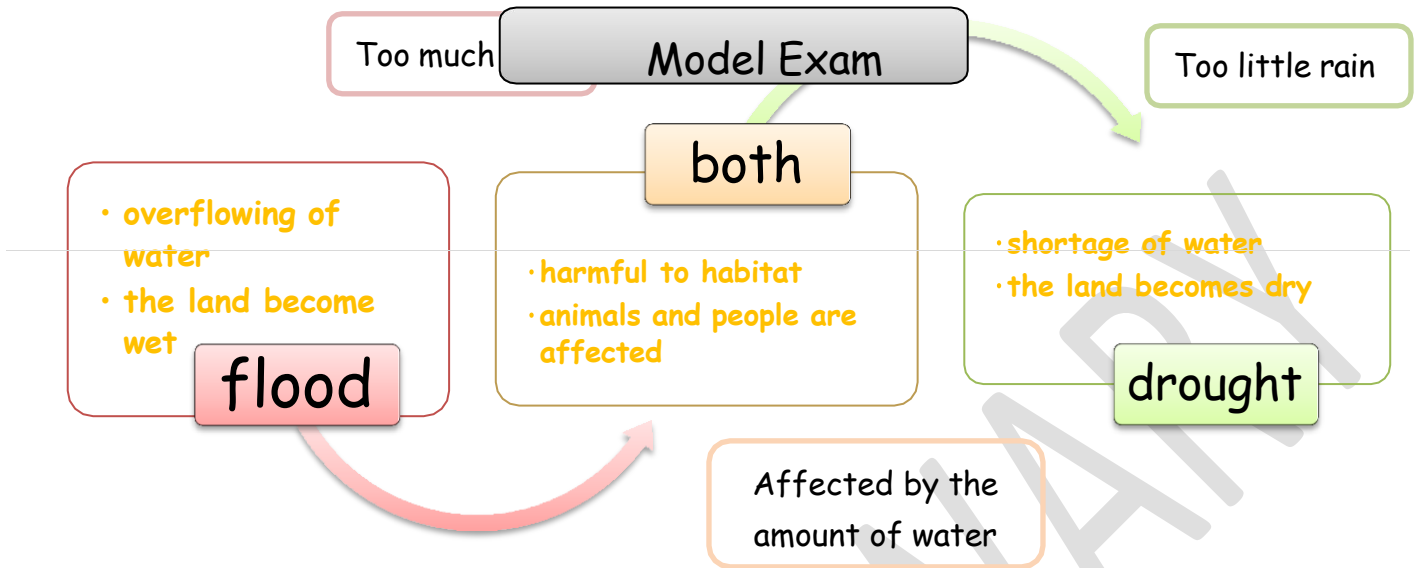
They may be damaged by moving or breaking them

2. Solar panels when dust accumulates on them.

Solar panels stop generating energy

6. Classify the following extreme weather conditions in venn diagram below using the sentences between brackets:-

(harmful to habitat - overflow of water - shortage of water - animals and humans are affected - the land becomes wet - the land becomes dry)



1. Choose the correct answer:-

1. The density of cold dry air is that of hot humid air
 - a. **More than**
 - b. equal to
 - c. less than
 - d. similar to
2. Heat transfers from the object to the object
 - a. Big - small
 - b. **hot - cold**
 - c. small - big
 - d. cold - hot
3. When air is heated, its changes
 - a. Smell
 - b. color
 - c. **density**
 - d. mass
4. Drought affects the following, except
 - a. Animals
 - b. plants
 - c. people
 - d. **buildings**
5. If a driver's visibility range in sunny weather is up to 5 km, the visibility range may reach... in stormy weather.
 - a. **1 Km or less**
 - b. 6 Km
 - c. 8 Km
 - d. 10 Km
6. Heat is transferred through the atmosphere by.....
 - b. **convection.**
 - b. conduction.
 - c. reflection.
 - d. absorption.

2. Choose from column (B) what suits it in column (A):-

(A)	(B)
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1. Anemometer	a. Measuring the atmospheric pressure
2. Weather radar	b. Measuring the wind speed
3. Rain gauge	c. Measuring the intensity of precipitation
	d. Measuring the amount of rain

1. b	2. c	3. d
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3. Put (√) or (x):-

1. When rain doesn't fall, soil may dry and plants may die (√)
2. By increasing the temperature of air, its density increases (x)
3. Sand cools down in a shorter time than sea water during nighttime (√)
4. The properties of the atmosphere at the top of the mountain and at its bottom are similar (x)

4. Write the scientific terms of each of the following:-

1. A side of mountains ranges of coastal regions that faces the coast (**wet side**)
2. A device used to measure atmospheric pressure (**barometer**)
3. It is the weight of the air above an area (**atmospheric pressure**)
4. A phenomenon in which very strong winds blow up dust that reduce the visibility during driving cars (**dust storm**)

5. Complete the following sentence:-

(flooding - drought - decrease - increase - dry- wet)

1. Extreme hot temperatures may causes **drought**
2. Heavy rain may cause **flooding**
3. Sandstorms **increase** the chances of car accidents
4. Dust storms **decrease** the water quality in irrigation canal
5. Floods result in formation of **wet** lands
6. Strong winds may blow up sand from a **dry** area such as deserts

6. Give reason for:-

1. Extreme weather became more danger in many places around the world
Due to global climate change
2. Formatting of fog in the early morning

Duo to condensation of water vapor that found in the air

7. What happen to.....?

1. The atmospheric pressure, as we move up toward the top of a mountain

Atmospheric pressure will decrease

2. Air density, as we move down toward the bottom of a mountain

Air density will increase

8. The following diagram shows the steps of rain shadow phenomenon, complete the following steps using the words below:-

(rises - descends - cools - warms - condenses)

humid air belows against a mountain

air (**rises**), then it (**cools**)

air (**condenses**), then precipitation
occures

air (**descends**), then it (**warms**)

air dries the land

Concept 4.1

Exam on lesson 1

1. Choose the correct answer:-

- Dorcas gazelle lives in.....
 - tropical area.
 - desert area.**
 - north pole.
 - south pole.
- The adaptation that is related to the body structure of a living organism, is known as.....
 - structural adaptation.**
 - behavioral adaptation.
 - homeland.
 - stopover.
- Birds migrate to search for all of the following, except.....
 - best conditions for reproduction.
 - another suitable habitat.
 - different food resources.
 - another unsuitable climate.**
- Photosynthesis process is affected by some environmental factors such as.....
 - availability of water only.
 - availability of light only.
 - availability of water and light.**
 - the length of the plants.
- The Red Sea in Egypt includes all of the following environments, except..... environment.
 - marine
 - mountain
 - rain forest**
 - coastal

2. Choose from column (B) what suits it in column (A):-

(A)	(B)
1. Structural adaptation	a. Is an example of structural adaptation
2. Behavioral adaptation	b. Like growth of plant toward light
3. Bird migration	c. Is an ecosystem
4. Thorns in a plant stem	d. Like thick fur of animals that live in cold areas
	e. Is an example of behavioral adaptation

1. **d**

2. **b**

3. **e**

4. **a**

3. Put (✓) or (x):-

- It is easy for animals to live in the desert environments. (**x**)
- Animals migrate from one place to another seasonally. (**✓**)
- Birds migrate to areas that have no food or water. (**x**)
- Dorcas gazelle can live in both desert area and semi-desert area. (**✓**)
- Migratory birds are affected by environmental factors during their migration. (**✓**)

4. Write the scientific terms of each of the following:-

- It is a type of behavioral adaptation in which animals move in a certain season from one place to another. (**migration**)
- An important stopover in Egypt for migratory birds, that includes marine, coastal and mountain environments. (**the red sea**)

3. It is a change in the behaviors or acts of a living organism to help it survive. (**behavior adaptation**)

5. **Give reason for:-**

1. Falcons and eagles migrate to Egypt in winter
Because Egypt in winter has a moderate climate conditions

6. **What happen to.....?**

1. The environmental conditions changes in the homeland in which some migratory birds live
They will migrate to another suitable habitat

Exam on lesson 2

1. **Choose the correct answer:-**

- Each environment on planet Earth has specific.....
a. climate only. b. plants only. c. animals only. d. **climate, plants and animals.**
- Poison dart frog lives in.....environment.
a. arctic b. Antarctic c. desert d. **tropical rain forest**
- All the following are biotic factors, except.....
a. animals. b. insects. c. **precipitation.** d. grasses.
- Abiotic factors in an ecosystem include.....
a. animals and air. b. grasses and soil. c. living organisms. d. **nonliving things.**
- Plants respond to the amount of..... they receive daily.
a. light only b. dark only c. **light and dark** d. biotic factors

2. **Put (✓) or (x):-**

- The skin of poison dart frog cannot protect it from predators. (**x**)
- Ecosystem contains biotic factors and abiotic factors. (**x**)
- Abiotic factors of an ecosystem can eat, breathe and grow. (**x**)
- Biotic factors of an ecosystem include sunlight, air and water. (**x**)
- Deserts may be hot areas or cold areas. (**✓**)
- Chrysanthemum plant can produce flowers when the nights are longer than days. (**✓**)

3. **Write the scientific terms of each of the following:-**

- The factors that include nonliving things in an ecosystem. (**abiotic factors**)
- It is a desert biome that has a cold climate all the year. (**Antarctic region**)

4. Give reason for:-

1. African penguin has a circle of skin that doesn't have any feather around each of its eyes.

To help its body cool fast in hot climate

2. Some plants in deserts produce seeds that can live for a long time

Because in deserts there are shortage of rain fall for a long time

5. What happen to.....?

1. The plants in an ecosystem, if they receive too intense light.

The too intense light may damage the plant's part and cause their dying or burning

6. Study the following picture then put (✓) or (✗):-



(1)



(2)



(3)



(4)

1. The four picture show some biotic and abiotic factors (✓)
2. The four picture show some biotic factors that live in three different environment (✓)
3. The animal in picture (2) live in an environment that suffers from shortage of water, while the environment in which the animal in picture (3) lives has a lot of water (✗)
4. Animals in picture (2) and (4) can't live in the same environment, while living organisms in picture (1) and (3) can live in the same environment (✓)
5. Caribou can live in the same environment in which the animal in picture (4) lives (✓)

Exam on lesson 3

1. Choose the correct answer:-

1. All the following are inherited traits in humans, except.....

- a. eye color. b. nose shape. **c. fur color.** d. ear shape.

2. Appearance of inherited traits on offspring, is due to passing down.....from their parents

- a. environmental factors b. behaviors **c. genetic factors** d. leaves

3. Birman cats have.....
- a. very fine hair. **b. long and silky hair.** c. no hair. d. black feathers.
4. All the following are inherited traits in plants, except.....
- a. leaves color. b. leaves shape. c. length of stem. **d. length of ears.**
5. Bad habits in humans lifestyle include.....
- a. eating healthy food b. doing exercises **c. drinking more soda** d. avoid smoking.
6. Genes are tiny structures that found in.....
- a. **the cell nucleus** b. the cell membrane c. the cell wall. d. mitochondria

2. Put (✓) or (×):-

- Inherited traits not affect the structure of living organisms. (×)
- Sphynx cat doesn't have any hair or have only very fine hair. (✓)
- All birman cats have white, very short and silky hair. (×)
- Inherited traits in sphynx cats include hairless body, eye color and ear shape. (✓)
- Your health will be positively affected, if you drink unclean water. (×)

3. Write the scientific terms of each of the following:-

- It is the factor that controls which traits get inherited from parents to their offspring. **(genetic factor)**
- They are external factors that affect our health and we might not able to control them. **(environmental factor)**
- They are responsible for determining the body feature, and present in the cell nucleus. **(genes)**

4. Complete the following sentence:-

- The types of cats that inherits its hairless body from its parents, is known as **sphynx** cat
- Sphynx cat doesn't have the genetic factors for **long hair** which is found in **birman** cat
- Colour and place of the flower are two inherited **traits** in plant

5. Give reason for:-

- Your lifestyle choices affect your health.

Because it depend on your behavior which may be good habits or bad habits

6. What happens to.....?

1. The inherited traits are transferred from desert plants to another through generations
The desert plants are more adapted to survive in extreme desert conditions

Model Exam

1. Choose the correct answer:-

1. Poison dart frog lives in..... environment
a. arctic b. Antarctic c. desert d. **tropical rain forest**
2. The red sea in Egypt includes all of the following environments except environment
a. marine b. mountain c. **rain forest** d. coastal
3. Genes are tiny structures that found in
a. **The cell nucleus** b. the cell membrane c. the cell wall d. mitochondria
4. Acacia tree and arctic fox live in
a. desert environment b. arctic environment
c. rain forest environment d. **two different environments**

2. Choose from column (B) what suits it in column (A):-

(A)	(B)
1. Acacia tree	a. It has sandy-colored scales
2. Poison dart frog	b. It has thick white fur
3. Emperor penguin	c. It lives in Antarctic
4. Arctic fox	d. It lives in desert
	e. It lives in tropical rain forest

1. d	2. e	3. c	4. b
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3. Put (√) or (x):-

1. Dorcas gazelle can live in both desert area and semidesert area (√)
2. Around each eye of emperor penguin, there is circle of skin that doesn't have any feathers (x)
3. Inherited traits in sphynx cats include hairless body, eye color and ear shape (√)
4. Migratory birds are affected by environmental factors during their migration (√)

5. Abiotic factors affect the growth and the adaptation of biotic factors (✓)
6. All birman cats have white, very short and silky hair (✗)
7. Availability of water is a genetic factor that affects the growth of trees and shrubs in an ecosystem (✗)
8. The amount of light affects the growth of plants (✓)

4. Write the scientific terms of each of the following:-

1. It is a type of behavioral adaptation in which animals move in a certain season from one place to another (migration)
2. It is a desert biome that has a cold climate all the year (antarctic)
3. They are responsible for determining the body feature, and present in the cell nucleus (genes)

5. Complete the following sentence:-

1. All living organisms inherit **genetic** factors which transferred from parents to their offspring
2. Thick fur is an example of structural adaptation for animals that live in **cold** climate
3. Some plants like palms and acacia trees live in the **desert** environment in Egypt
4. Sphinx cat doesn't have the genetic factor for **long hair trait** which is found in **birman** cat

6. Give reason for:-

1. Some plants which live in desert environment have short extended roots near the earth's surface

To absorb any available water, and to catch the smallest drops of dew

2. African penguin has a circle of skin that doesn't have any feather around each of its eyes

To help its body cool fast in hot climate

7. What happen to.....?

1. Living organisms in an ecosystem, if water and light are not available

Living organisms can't survive and will die

2. The environmental conditions changes in the homeland in which some migratory birds live

They will migrate to another suitable habitat

8. Look at the opposite figure, then complete the following sentence:-



Photo no. (1)



Photo no. (2)



Photo no. (3)

A. Complete the following sentences:-

1. Photo number (1) and (3) represent bad habits
2. Photo number (2) represents a good habit

B. Put (√) or (x):-

1. Photo number (3) represents an environmental factor that positively affect human health (x)
2. Photo number (1) and (2) are related to genetic factors (x)
3. Photo number (2) and (3) are represent good lifestyle choices (x)
4. All photo show habits that have different effects on the human health (√)