مراجعات النـــخبة

بنك الأسئلة

SCIENCE

Science
Final Review 2026



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Prepared by:
Ms/ Mariam Ragab

Review Scientific Material
by Mrs / Enas Mohamed

SCAN ME

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1 Define (what is meant by) the following:

1\ Runoff : _____

2\ Collection: _____

3\ Water cycle : _____

4\ Convection : _____

5\ Meteorology: _____

6\ Meteorologist: _____

7\ Atmospheric pressure: - _____

8\ Humidity: _____

9\ Drought: _____

10\ Flood: _____

11\ Evaporation : _____

12\ Transpiration : _____

13\ Condensation : _____

14\ Precipitation: _____

15\ Convection : _____

16\ Adaptation

17\ Structural adaptation

18\ (Physical adaptation)

19\ Behavioral adaptation

20\ Migration

21\ Ecosystem

22\ Biotic factors

23\ Abiotic factors

24\ Soil

25\ Minerals

26\ Humus

27\ Pore spaces (Pores)

28\ Desertification

29\ Habitat

2 Choose The Correct Answer :

1. The large salt lake in Turkey is dried up due to the increase in the rate of ..... process.
   ⓐ melting ⓑ freezing ⓒ evaporation ⓓ condensation
2. Increasing or decreasing of water level in some lakes is due to the transfer of ..... through the water cycle.
   ⓐ rocks ⓑ energy ⓒ work ⓓ wind
3. In winter, rain falls due to ..... process.
   ⓐ condensation ⓑ evaporation ⓒ collection ⓓ precipitation
4. When water runs through a river then into a sea, this step is called .....
   ⓐ runoff ⓑ condensation ⓒ precipitation ⓓ evaporation
5. The distribution of ..... energy on the Earth's surface plays an important role in evaporation process in the water cycle.
   ⓐ electrical ⓑ solar ⓒ sound ⓓ kinetic
6. The form of water that is found in air and sometimes we cannot see it is ...
   ⓐ liquid water ⓑ water vapor ⓒ ice ⓓ snow
7. The condensed water vapor in clouds returns back to Earth's surface in the form of all the following, except .....
   ⓐ water vapor ⓑ rain ⓒ snow ⓓ sleet
8. The rain falling on the mountain is a form of .....
   ⓐ cloud ⓑ precipitation
   ⓒ evaporation ⓓ condensation



9. The rain on the mountain runs into the ..... and goes to the ocean
   ⓐ Sun ⓑ river
   ⓒ ocean ⓓ groundwater
10. When the Sun heats up the water in the ocean, it will .....
    ⓐ run off ⓑ condense
    ⓒ precipitate ⓓ evaporate

11 **Fresh water is stored underground in the form of groundwater by the effect of .....**

ⓐ condensation ⓑ electricity ⓒ gravity ⓓ evaporation

12 **The weather of the areas near the equator is .....**

ⓐ hot and humid ⓑ hot and snowy

ⓒ warm and humid ⓓ warm and snowy

13 **Due to the very little rains that precipitate in some areas on Earth, large areas of ..... are formed.**

ⓐ forests ⓑ seas ⓒ oceans ⓓ deserts

14 **When warm air is cooled, it will move .....**

ⓐ upward ⓑ downward

ⓒ forward ⓓ backward

15 **The ..... air causes the formation of many desert areas around Earth's surface.**

ⓐ cold ⓑ moisted

ⓒ dry ⓓ dusty

16 **Wind helps in transporting water through the water cycle by carrying.....**

ⓐ sand grains ⓑ small rocks

ⓒ plant leaves ⓓ water vapor

17 **When the temperature of air ..... its density .....**

ⓐ increases – increases ⓑ decreases – decreases

ⓒ increases – decreases ⓓ decreases – doesn't change

18 **Dorcas gazelle lives in .....**

ⓐ **tropical area** ⓑ **desert area.**

ⓒ **north pole.** ⓓ **south pole.**

19 **The adaptation that is related to the body structure of a living organism, is known as ...**

ⓐ **structural adaptation** ⓑ **behavioral adaptation**

ⓒ **homeland** ⓓ **stopover**

20 **Birds migrate to search for all of the following, except ...**

ⓐ **best conditions for reproduction** ⓑ **different food resources**

ⓒ **another suitable habitat** ⓓ **another unsuitable climate**

21 During their journey, migratory birds may suffer from all of the following conditions, except …

ⓐ many resting sites are available ⓑ presence of predators
ⓒ shortage of food ⓓ shortage of water

22 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

23 Each environment on planet Earth has specific ……

ⓐ climate only ⓑ plants only
ⓒ animals only ⓓ climate, plants and animals

24 The trait that helps Emperor penguin to keep its body warm, is the ……

ⓐ presence of thin fatty layer
ⓑ presence of thick fatty layer
ⓒ absence of feathers around its eyes
ⓓ absence of feathers around its body

25 Poison dart frog lives in the …… environment

ⓐ arctic ⓑ Antarctic
ⓒ desert ⓓ tropical rain forest

26 Arctic fox has …… to warm its body.

ⓐ colorful poisonous skin ⓑ sandy-colored scales
ⓒ thin white fur ⓓ thick white fur

27 Acacia tree and arctic fox live in ……

ⓐ desert environment ⓑ arctic environment
ⓒ rain forest environment ⓓ two different environments

28 Transferring of some properties from parents to offspring occurs in……

ⓐ living organisms only ⓑ nonliving things only
ⓒ living organisms and nonliving things ⓓ soil, air, water and sunlight

29 The genetic factors transfer from ……

ⓐ living organism to nonliving thing
ⓑ nonliving thing to living organism
ⓒ parents to their offspring
ⓓ offspring to their parents

30 **Transferring of genetic factors happens in ……**

ⓐ humans only ⓑ animals only

ⓒ humans and animals ⓓ humans, animals and plants

31 **All the following are inherited traits in humans, except….**

ⓐ eye color ⓑ nose shape

ⓒ fur color ⓓ ear shape

32 **The cold air is …… and always…….**

ⓐ less dense – moves down ⓑ less dense – moves up

ⓒ more dense – moves up ⓓ more dense – moves down

33 **Convection currents occur in the atmosphere when, ……**

ⓐ cold air rises up and warm air falls down

ⓑ warm air rises up and cold air falls down

ⓒ both cold air and warm air rise up

ⓓ both cold air and warm air fall down

34 **Convection currents in the atmosphere are controlled by ……**

ⓐ precipitation process

ⓑ moon's rotation

ⓒ the thermal energy from the Sun

ⓓ the light energy from the moon

35 **Heat is transferred through the atmosphere by ……**

ⓐ convection ⓑ conduction

ⓒ reflection ⓓ absorption

36 **The tool that is used to measure the speed of precipitation is ……**

ⓐ anemometer ⓑ barometer

ⓒ thermometer ⓓ weather radar

37 **…… happens due to the shortage of water in an area for a long period of time.**

ⓐ Flooding ⓑ Snowfall

ⓒ Drought ⓓ Sandstorm

38 The increase in the amount of rain for a long period of time may cause .....

ⓐ flooding ⓑ sandstorm
ⓒ drought ⓓ dust storm

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

ⓐ people ⓑ plants
ⓒ buildings ⓓ animals

40 Floods may occur as a result of ..... and .....

ⓐ gentle rain – melting of snow ⓑ heavy rain – sudden melting of snow
ⓒ gentle rain – freezing of water ⓓ heavy rain – little evaporation of water

41 Minerals are the building units of. .....

ⓐ air ⓑ plants
ⓒ water ⓓ rocks

42 The material rich in nutrients and increases the soil fertility is known as...

ⓐ decomposers ⓑ humus
ⓒ sand ⓓ water

43 Pore spaces of the soil are filled with ....or ,.....

ⓐ minerals - water ⓑ air - sand
ⓒ minerals - sand ⓓ water - air

44 Silt particles are larger than . and smaller than .....

ⓐ clay particles - sand particles ⓑ sand particles - clay particles
ⓒ big rocks - clay particles ⓓ sand particles - big rocks

45 There are..... between particles of the soil that contain ....or air.

ⓐ water-plants ⓑ pore spaces - water
ⓒ humus - animals ⓓ dead plants-dead animals

46 When the soil contains large amount of sand particles, the flow of water will .....

ⓐ not change ⓑ increase
ⓒ decrease ⓓ stop

47 The soil that retains medium amount of water becomes .....

ⓐ more fertile ⓑ less fertile
ⓒ unsuitable for planting ⓓ very dry

48 Silt soil contains..... particles and its color is .....

ⓐ large - yellow ⓑ medium - dark

ⓒ large - dark ⓓ medium-gray

49 Clay soil allows water to flow..... as it has.....pore spaces between its particles.....

ⓐ fast-small ⓑ slowly-large

ⓒ slowly-small ⓓ fast-large

50 The size of particles of clay soil is .....

ⓐ larger than the particles of sand soil only.

ⓑ larger than the particles of sand and silt soils.

ⓒ smaller than the particles of sand soil only.

ⓓ smaller than the particles of sand and silt soils

51 Human activities like pollution and waste produced by humans led to the increase in ..... gas percentage and ..... in Earth's temperature.

ⓐ carbon dioxide - decrease ⓑ oxygen-increase

ⓒ carbon dioxide - increase ⓓ oxygen - decrease

52 .....is from the invasive species that are found in the Red Sea.

ⓐ Emperor penguin ⓑ Lionfish

ⓒ Poison dart frog ⓓ Lizard

53 Treatment of sewage water and reducing the amount of fertilizers help in..

ⓐ increasing air pollution.

ⓑ increasing soil pollution.

ⓒ increasing water pollution.

ⓓ decreasing water pollution.

54 From the reasons that increase water pollution is.....

ⓐ treatment of sewage and industrial water.

ⓑ getting rid of trash in correct ways.

ⓒ increasing the industries that use water.

ⓓ using soil fences and sedimentation ponds.

55 .....and ..... are from the ways to reduce water pollution.

ⓐ Treatment of sewage water - increasing air pollution

ⓑ Using soil fences - keeping green areas

ⓒ Using a large amount of fertilizers - controlling air pollution

ⓓ Getting rid of trash in rivers - keeping green areas

56 Soil scientists and engineers hope to stop depending on traditional bricks and concrete because they……

ⓐ require a lot of energy only.
ⓑ produce a lot of pollution only.
ⓒ require less energy and produce a lot of pollution.
ⓓ require a lot of energy and produce a lot of pollution.

57 The manufacture of…… requires a lot of energy and produces a lot of pollution.

ⓐ bricks glue-like substance
ⓑ cement-glue-like substance
ⓒ bricks - cement
ⓓ glue-like substance - rocks

58 Soil can be made healthy by using……

ⓐ Pesticides ⓑ chemical fertilizers
ⓒ natural fertilizers ⓓ burning of organic matter

59 Which of the following does not cause desertification of soil?

ⓐ Drought ⓑ Cutting down trees
ⓒ regular irrigation ⓓ overgrazing

60 Each of the following factors lead to soil depletion except…

ⓐ Overgrazing ⓑ chemical fertilizers
ⓒ deforestation ⓓ decomposing organisms

3 Complete The Following Sentences :

1) The two basic factors for water cycle are …… and ……
2) Water state changes in water cycle by …… and …… energy.
3) Snow falls during the process of ……
4) The ……causes water to seep into the ground. ……
5) The water level in lakes increases with increasing . ……
6) The processes that require the gaining of energy by water molecules in reservoir are …… , ……and ……

7) The …… works to transfer energy between reservoirs on the Earth's surface.

8) Reservoirs are ……

9) There are three main stages that make up the water cycle: …… , …… and ……

10) Evaporation is the change of the …… state to the …… state.

11) The transpiration rate represents …… % of the ratio of water vapor in the air.

12) The …… occurs when large numbers of water droplets combine together.

13) The water moves on Earth among ……

14) The convection currents move in …… direction

15) When we put a jar of hot water blue color on the top of a jar with cold water red color, the colors ……

16) The …… air forms deserts.

17) The regions near the …… are very hot.

18)

19) Flamingos migrate to the large salt lake in Turkey when the weather becomes …… , and they feed on …… which are found in this lake.

20) Formation of fog is due to the …… of water vapor on a field in early morning.

21) Energy of the Sun causes the changing of liquid water into …… by evaporation process.

22) The amount of …… energy that reaches Earth's surface affects the rate of evaporation process in the water cycle.

23) Water vapor comes out from plant leaves through the ……

24) Drying up of a shallow pond in summer is an example of …… process.

25) Clouds are made up of millions of tiny …… droplets.

26) When the water droplets in the clouds become too heavy, it causes ..... process.

27) Water starts to move or change its way of movement when ..... force affects its.

28) Water collects in some water reservoirs such as ..... , ... and living organisms.

29) The weather of the area far away from the equator is ..... because the sun rays fall ..... on Earth's surface at this area.

30) Cold water has more ..... than warm water, so it moves under the warm water.

31) The Sun produces the energy which causes the movement of ..... currents that produces ocean currents and ..... .

32) Due to convection currents, hot air moves ..... cold air.

33) Complete the following sentences using the words below :

rotation – deserts – direction – upward – solar radiation – winds – rain – downward

1) The global wind system of Earth consists of ..... that blow in a constant ..... over long periods of time.

2) The direction of wind is determined by the amount of ..... received by Earth and ..... of Earth.

3) When warm air contains enough water vapor, it loses this water in the form of .....

4) When warm air is cooled, it moves ..... while cold air moves ..... when it is warmed.

5) Dry air causes the formation of large areas of ..... around Earth's surface.

34) Both of environmental factors and ..... factors affect the growth of living organisms.

35) Thick fur is an example of structural adaptation for animals that live in ..... climate.

36) Both of the ..... Sea and the ..... River are two important stopovers in Egypt for migratory birds.

37) Bird migration helps them to search for different ..... sources and suitable ..... to live in.

38) Emperor penguin lives in ..... and it has a thick ..... and its skin is covered with dense ..... to keep its body warm.

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

40) Some plants like palms and acacia trees live in the ..... environment in Egypt.

41) Some desert plants can store water in their ..... and .....

42) Some desert plants have thick leaves to store .....

43) Some desert plants have ..... on their stems and branches to protect them from herbivores.

44) Living organisms of an ecosystem include humans, animals and .....

45) Any ecosystem contains ..... factors and ..... factors.

46) Abiotic factor include all ..... things.

47) Plants and ..... live in the same ecosystem, depend on each other to live and reproduce.

48) Complete the following sentences using the words below:

Sphynx	Birman	plants	animals	genetic	environmental

1. A ..... kitten inherits the trait of long silky hair, while a ..... kitten inherits the trait of hairless body from its parents.

2. Genes determine the fur color in ..... and the flower color in .....

3. Availability of food, clean water and health care are examples of ..... Factors that affect our health, while ..... factors determine our body structures like hair color and eye color.

49) All living organisms inherited ..... factors which transferred from parents to their offspring.

50) The type of cats that inherits its hairless body from its parents, is known as ..... cats .

51) Sphynx cat doesn't have the genetic factor for ..... which is found in ..... cat .

52) Color and place of the flower are two ..... factors in plants.

53) The way of your earlobes hang and the length of your fingers are two ..... traits controlled by ..... that are found in the cell nucleus.

54) Air is considered one of the ..... factors.

55) Palm trees are adapted to .... in the desert.
56) Fish migration is considered one of the ..... adaptations.
57) Environmental factors that affect a living organism include ..... and .....
58) ..... adaptations of a living organism are related to its body structure.
59) The ..... – ..... is considered one of the reasons for birds returning to their habitat.
60) A ..... plant grows when the day is shorter than the night.
61) Light is one of the ..... factors.
62) The factors that affect the internal and external development of a human being a ....., ... and .....
63) The Sphinx cat and the Birman cat belong to the ..... cat breed.
64) Genes found in the ..... of the cell.
65) When air is heated, it expands as its ..... move away from each other.

66) The horizontal movement of air is called ....., whereas the vertical movement of air is called .....

67) Complete the following sentences using the words below

flooding – drought – decrease – increase – dry – wet

1-Extreme hot temperatures for a long period of time, may cause .....
2-Heavy rain for a long period of time, may cause .....
3-Sandstorms ..... the chances of car accidents.
4-Dust storms ..... the water quality in irrigation canals.
5-Floods result in formation of ..... lands.
6-Strong winds may blow up sand from a ..... area such as deserts.

68) Types of soil differ from each other in ..... and .....
69) The soil is the shelter for many living organism such as ....., worms ..... and bacteria.
70) The soil is composed of many inorganic ingredients as ....., ..., ... and minerals.
71) The building units of rocks are called .....
72) The remains of dead plants and animals are decomposed into chemical nutrients such as ..... nitrogen and .....

73) Organic material in the soil includes the remains of dead ..... and .....

74) The spaces among the particles of the soil are called ..... and they are filled with ..... or .....

75) According to the size of particles in the soil, ... are the biggest particles while ..... are the smallest particles.

76) Types of plants in the soil affect the ..... conditions of the ecosystem.

77) During rainfall, the soil of humid areas retain ..... mount of water.

78) When water level increases in some humid areas it become ..... contains a little amount of .....

79) Sand soil is ..... loose soil, so large trees can't grow in it.

80) Savannas are dry ..... ecosystems that contain .....

81) Herbivores like gazelles can live in ..... ecosystem that has grasses and small plants.

82) Increasing the inclination of the land leads to the increase of ..... process of the soil.

83) The land becomes infertile due to ..... drought or overgrazing that cause .....

84) Overuses of ..... and ..... cause depletion of the soil.

85) Natural habitats include desert, ..., ... oceans and .....

86) From natural changes that cause habitat destruction are ....., fires, ... and volcanic eruptions.

87) Human activities cause the increase in ..... gas percentage and lead to the increase in Earth's .....

88) Changing natural spaces as hills, prairies and valleys into factories led to .....

89) To reduce water pollution we have to keep green areas, and treat ..... and industrial water.

90) Using soil fences and ..... ponds help in reducing ..... pollution.

91) Soil scientists hope to stop using ..... bricks and concrete that are used in building houses.

92) To produce traditional bricks and cement, a lot of ..... is required and a lot of ..... is produced.

93) The glue-like substance that is used to bind building materials together is formed by the ..... change of the .....

94) Engineers used the glue-like substance to ..... build homes instead of ..... bricks.

95) ....., ... and ..... are from the biotic soil ingredients.

96) The clay soil particles ..... in size.

97) The process of moving rocks from one place to another is known as .....

98) Silt soil are ..... in size.

99) ..... and ..... are from the basic processes in soil formation.

100) ..... are the remains of organisms that have died and decayed.

101) Sand soils are characterized by ..... fertility

102) Rocks are broken up into smaller and smaller pieces through the process of .....

103) Inorganic ingredients of the soil are ..... - ..... - .....

104) It is available in the natural habitat ....., ... and ..... as essential resources for the survival of living organisms.

105) One of the advantages of using sustainable soil ..... and .....

106) Natural factors that increase soil fertility .....

107) One of the ways to preserve the soil ..... and ....

108) One of the factors that lead to the destruction of natural habitat by humans ..... – .....

109) When plants and animals are unable to adapt, they may face the risk of .....

110) To reduce water pollution resulting from the overpopulation and industries .....

111) From the factors that lead to increasing soil erosion ..... - ....

112) Fertility can be restored to the soil by adding .....

4 Write Scientific Term:

1) A process by which plants get rid of excess water in the form of water vapor through stomata. (.....)

2) It happens when the water droplets that make up clouds become heavier and fall due to gravity.(.....)

3) It is caused when air warmed by the solar radiation rises and then replaced by cooler air that flows from nearby areas. (.....)

4) Large areas of land that are formed due to the effect of dry air. (……)
5) The cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to Earth in the form of rain, sleet or snow ..(……)
6) It is the method by which heat transfers within liquids and gases, where hot molecules rise upward, while colder molecules fall down (……)
7) It is the method by which heat of the Sun transfers from the space to Earth's atmosphere… (……)
8) An important stopover in Egypt for migratory birds, that includes marine, coastal and mountain environments. (……)
9) It is a change in the behaviors or acts of a living organism to help it survive. (……)
10) Behaviors that living organisms inherit due to the effect of genetic factors. (……)
11) Behaviors that living organisms get due to the effect of environmental factors. (……)
12) It contains biotic factors and abiotic factors that interact with each other. (……)
13) The factors that include living organisms in an ecosystem. (……)
14) The factors that include nonliving things in an ecosystem. (……)
15) It is a desert biome that has a cold climate all the year. (……)
16) It is the factor that controls which trait get inherited from parents to their offspring. (……)
17) They are responsible for determining the body feature, and present in the cell nucleus. (……)
18) Traits that play an important role in determining the shape and structure of an organism.(……)
19) The process by which a living organism becomes capable of living in an environment in a way that enables its survival.(……)
20) An organelle in the cell responsible for reproduction and building special information about the cell. (……)

21) The falling of snow to the Earth's surface, when water droplets in clouds are changed into ice crystals.(.....)
22) The vertical movement of air in the atmosphere. (.....)
23) The horizontal movement of air in the atmosphere. (.....)
24) The force that pulls big and heavy water droplets toward the ground causing precipitation. (.....)
25) It is a natural phenomenon in which extreme dry and hot weather affect an area for a long period of time. (.....)
26) It is a natural phenomenon in which the level of water in a river increases until it overflows onto its banks. (.....)
27) It is a natural phenomenon in which very strong winds blow up dust that reduces the visibility during driving cars. (.....)
28) It is the science of studying and predicting the weather. (.....)
29) The scientist who uses a variety of tools and instruments to study and forecast weather. (.....)
30) It is the amount of force that air exerts on its surroundings. (.....)
31) It is the measure of how much water vapor is present in the air. (.....)
32) The loose delicate layer of the earth. (.....)
33) Spaces between soil particles filled with water or air .(.....(.....))
34) A type of soil characterized by its large sized (.....)
35) Organic components rich in nutrient produced by the decomposition of dead organisms. (.....)
36) Poorly aerated soil and it has small grains. (.....)
37) It is a place where living organisms live and where water, food, and shelter are available. (.....)
38) It is the depletion of one of the natural resources provided by the habitat or taking it completely. (.....)
39) Species of organisms that enter the ecosystem and cause disruption (.....)

5 Give Reasons For :

1\ The gravitational force is the main factor of water cycle. .

.....

2\ The rareness of the precipitation of the rainfall in the deserts. .

.....

3\ The temperatures are different around the world.

.....

4\ Dry air forms deserts.

.....

5\ The regions near the two poles are very cold.

.....

6\ The regions near the equator are very hot.

.....

7\ Deserts formation.

.....

8\ Formation of fog in the early morning.

.....

9\ Changing of water from one state to another.

.....

10\ The weather in the area near the equator is hot.

.....

11\ The difference in temperatures and densities in water of oceans and atmosphere.

.....

12\ The water cycle is very important for all living ogranisms on Earth's surface.....

13\ On adding warm water to cold water without shaking, the warm water stay above cold water without mixing.

.....

14\ The formation of wind is determined by the amount of solar radiation received by Earth. .....

15\ The water cycle is a Continuous Process? .

.....

16\ Evaporation and Condensation are opposite Processes ? .

.....

17\ all dorcas gazelle is similar to its parents.

.....

18\ Falcons and eagles migrate to Egypt in winter.

.....

19\ Birds migrate from one place to another place.

.....

20\ African penguin has a circle of skin that doesn't have any feathers around each of its eyes.....

21\ Most of desert plants have short extended roots near Earth's surface.

.....

22\ A birman kitten has a long and silky hair.

.....

23\ Sphynx cat doesn't have long hair.

.....

24\ Your lifestyle choices affect your health.

.....

25\ Plants manage to adapt to warm and dry climates?

.....

26\ Some plants have long roots ?

.....

27\ The length and texture of cats' hair vary for the same breed.

.....

28\ Snow forms on The Top of The Mountain while water remain liquid at bottom? .

.....

29\ Meteorologists represent weather forecasts as Probability ratios? .

.....

30\ The spinning of Paper spirals over a turned on lamp? .

.....

31\ Plants grow slowly in The Windless area of the Mountain ? .

.....

32\ The Temperature in The desert is high during the day and low at night? .

.....

33\ The atmospheric Properties differ at The mountain's Summit compared To its Properties at the mountain's base ? .

.....

34\ When air is heated, it expands.

.....

35\ Convection currents in the atmosphere are considered as vertical movements of air. .....

36\ Extreme weather phenomena became more stronger in many places around the world. .....

37\ Floods have some benefits.

.....

38\ Sandstorms have harmful effects on human health.

.....

39\ Flooding is more dangerous if the ground is frozen. .

.....

40\ It is easy to see a sandstorm from a long distance. .

.....

41\ Snow falls on some places. .

.....

42\ Although predicting the weather is a difficult task, meteorologists are able to make accurate predictions. .

.....

43\ Air movement (in the term of temperature)

.....

44\ Composition of soil differs from one place to another on Earth's surface.

.....

45\ Soil is very important for plants.

.....

46\ Importance of humus for soil and plants.

.....

47\ Water can flow very fast through sand soil.

.....

48\ The soil that retains medium amount of water is more fertile.

.....

49\ Clay soil can retain more amount of water.

.....

50\ Large trees can't grow in savannas grassland ecosystems.

.....

51\ The soil in a bog ecosystem is wet most of the time.

.....

52\ The increase in the inclination of the land causes the erosion of the soil.

.....

53\ Scientists and farmers should use crop remains like straw and stem in the soil.

.....

54\ Desertification process increases recently.

.....

55\ Forest fires may have some benefits.

.....

56\ We should keep green areas and reduce the amount of fertilizers.

.....

57\ Soil scientists and engineers hope to stop using traditional bricks and concrete in building houses.

.....

58\ The type of soil vary from one environment to another.

.....

59\ Decomposers are considered environmental cleaner?

.....

60\ Over population may cause the destruction of natural habitats.

.....

61\ Plants and animals depend on the soil.

.....

62\ Adding sand and silt helps in the soil restoration.

.....

6 What Happens To :

1) Sunlight falls perpendicularly on the Earth's surface .

.....

2) Increasing evaporation of the lake water.

.....

3) What happens to water on the Earth's surface when its temperature rises due to the sun? . .....

4) What happens when water falls on the earth? .

.....

5) Place a jar with hot water (blue color) on the top of a jar with cold water (red color) (relative to mixing colors) .

.....

6) The difference of air particles temperature (relative to convection currents) .

.....

7) very dry wind blows over an area of the land. .

.....

8) The air temperature if there is no wind on Earth. .

.....

9) The movement of air when solar radiation heats up the air in an area. .

.....

10) If you cover some leaves in a plant with a plastic bag, then put this plant in the direct sunlight for awhile.

.....

11) If moist air touches a cold bottle of water.

.....

12) If water vapor in air condenses in the sky.

.....

13) If the water droplets in the clouds become very heavy.

.....

14) To the weather if the sun rays fall very inclined on an area.

.....

15) To the density of air if the cold air is warmed by the effect of solar energy.....

16) If the environmental conditions change in the homeland in which some migratory birds live.

.....

17) To the living organisms in an ecosystem, if water and light are not available.

.....

18) To the plants in an ecosystem, if they receive too intense light.

.....

19) To two similar plants, if they are exposed to the same intensity andduration of light.

.....

20) If African penguin has dense feathers around each of its eyes.

.....

21) If arctic fox has a thin fur instead of a thick fur.

.....

22) If arctic fox has a black fur instead of a white fur.

.....

23) If the genetic factor of hairless body trait is transferred from sphynx cats parents to their offspring.

.....

24) If the poison dart frog doesn't have big eyes.

.....

25) If the Arctic fox does not have a thick fur.

.....

26) When a green plant is placed away from the source of sunlight (in terms of growth direction) ?

.....

27) Healthcare services are not available in some places.

.....

28) The water movements when boiling it in a pot.

.....

29) The water droplets in clouds when they become bigger and heavier. .

.....

30) The buildings when they are subjected to strong floods.

.....

31) The solar panels when dust accumulates on them.

.....

32) light bulb is placed 5cm from a container of sand and another container of the same volume of water (which heat up faster) .

.....

33) Placing Spiral paper above unlighted lamp. .

.....

34) The severe decreasing in temperature in some places (in the term of precipitation) .....

35) Rising higher in relation To atmospheric Pressure and Temperature ? .

.....

36) The air Cools and water vapor Condenses at the sky ? .

.....

37) The amount of water vapor in the air increases ? .

.....

38) Sand and water at night after They exposed To sunlight at The day ? .

.....

39) The ice melts suddenly? .

.....

40) The weather is dry for a long Time? .

.....

41) Accumulation of dust over solar Panels ? .

.....

42) The plants if the soil becomes unhealthy.

.....

43) The soil if the temperature in the environment increases.

.....

44) The soil if it does not contain any decomposer organisms.

.....

45) The rocks if they are affected by weathering process.

.....

46) The soil if it has large amount of pore spaces between its particles.

.....

47) The soil fertility if the soil hold medium amount of water.

.....

48) The soil when there is much water in a humid area.

.....

49) The soil when fertile agricultural lands are converted into factories or pastures.

.....

50) The soil when farmers increase the planted areas.

.....

51) The habitat when the number of predators decreases.

.....

52) Living organisms to stay alive if they are affected by the change in their habitates due to climate change.

.....

53) The sea water if industrial water is thrown into the sea without treatment.

.....

54) If the soil particles is large in size.

.....

55) For organisms if resources are scarce in an area?

.....

56) Materials are burned under extremely high temperatures using large amounts of coal? .....

7 Put ✓ Or ✗ :

1\ The amount of thermal energy that reaches the water bodies on Earth's surface affects the rate of condensation process in the water cycle. ( )

2\ Electricity is the force which causes moving down of water from higher places to lower places on Earth. ( )

3\ Evaporation is the process of water changing from a liquid state to a gaseous state. ( )

4\ The oceans are the main source of evaporation in the water cycle. ( )

5\ Climate change does not affect the water cycle. ( )

6\ Ground water flows due to gravity from low - lying areas to high - lying areas. ( )

7\ Wind transfers energy between reservoirs on the Earth's surface. ( )

8\ Evaporation occurs as a result of the gaining of heat energy. ( )

9\ Small lakes dry up as a result of precipitation. ( )

10\ Condensation occurs when a gas is heated and turns into a liquid. ( )

11\ When the sun's rays are very slanted, we feel hotter. ( )

12\ Convection currents in Earth's atmosphere help to determine the nature of regional climates. ( )

13\ The process of condensation is the changing of hot water into water vapor.( )

14\ The convection currents moves horizontally. ( )

15\ Warm moist air is denser than cold one. ( )

16\ Water level in lakes is decreased due to increased evaporation. ( )

17\ The difference of air particles temperature (relative to movement) the warm air move upward and the cold move downward. ( )

18\ It is easy for animals to live in the desert environments. ( )

19\ Thorns on a plant stem, is an example of structural adaptation. ( )

20\ Some animals migrate from one place to another seasonally. ( )

21\ Birds migrate to areas that have no food or water. ( )

22\ Dorcas gazelle can live in both desert area and semidesert area. ( )

23\ Availability of water is a genetic factor that affects the growth of trees and shrubs in an ecosystem. ( )

24\ Different types of environments have different types of plants and animals. ( )

25\ Around each eye of an Emperor penguin, there is a circle of skin that doesn't have any feathers. ( )

26\ Acacia trees and palms are adapted to live in desert environment. ( )

27\ When the rain falls in desert environment, some plants reach the flowering stage quickly. ( )

28\ Ecosystems include living organisms only. ( )

29\ Ecosystems contain biotic factors and abiotic factors. ( )

30\ Abiotic factors of an ecosystem can eat, breathe and grow. ( )

31\ Biotic factors of an ecosystem include sunlight, air and water. ( )

32\ All living organisms inherited traits from their parents. ( )

33\ Inherited traits don't affect the structure of living organisms. ( )

34\ Sphynx cat doesn't have any hair or have only very fine hair. ( )

35\ All Birman cats have white, very short and silky hair. ( )

36\ There is no Sphynx cat has long hair like Birman cat. ( )

37\ Transferring of inherited traits through generations of desert plants, make them more adapted to survive in extreme desert conditions. ( )

38\ Inherited traits in Sphynx cats include hairless body, eye color and ear shape. ( )

39\ Environmental and genetic factors affect the behaviors, structure and the growth of living organisms. ( )

40\ When air is cooled its molecules spread away from each others. ( )

41\ Cold air has more density than that of hot air. ( )

42\ By increasing the temperature of air, its density decreases. ( )

43\ Convection currents in the atmosphere are usually controlled by Earth's rotation. ( )

44\ Anemometer is used to measure the speed of precipitation. ( )

45\ Rain gauge and weather radar have the same function. ( )

46\ Transfer of heat by convection occurs in solids, liquids and gases. ( )

47\ The hand that is placed above a lighted candle feels hot because hot air has high density so it moves up. ( )

48\ Heavy rain may cause extreme drought condition . ( )

49\ When rain doesn't fall for a long period of time, soil may get dry and plants may die. ( )

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50\ Although flooding is harmful, it also has some benefits. ( )

51\ Sandstorms blow up from a dry area such desert. ( )

52\ Sandstorms may reduce the visibility during driving cars. ( )

53\ Water loses its heat slower than sands( )

54\ The anemometer is used in determine air pressure. ( )

55\ The spinning of the paper spirals over a turned - on lamp indicates the occurrence of convection currents ( )

56\ Clay soil has a gray color while sand soil has a yellow color. ( )

57\ Clay soil retains more amount of water than sand soil. ( )

58\ The size of sand particles is smaller than that of silt particles. ( )

59\ Water flows through sand soil faster than in clay soil. ( )

60\ Soils differ in their color and their ability to hold water. ( )

61\ The climate doesn't affect the types of plants that can grow in an area. ( )

62\ Humid areas retain large amount of water during rainfall. ( )

63\ Healthy soil is very important to keep the life on Earth. ( )

64\ Converting fertile agricultural lands into cities leads to increase the deforestation of the land. ( )

65\ The soil can't be restored again. ( )

66\ Adding natural fertilizers like animal manure to the soil help in soil restoration. ( )

67\ When the soil is irrigated regularly, the quality of the crops will increase. ( )

68\ Removing plants leads to the soil erosion. ( )

69\ Human activities only lead to habitat destruction. ( )

70\ Streams and oceans are examples of natural habitats. ( )

71\ Cleaning up water from pollution is more effective than preventing it. ( )

72\ To build traditional bricks, we need a lot of energy. ( )

73\ Depending on traditional bricks and concrete causes harms for the environment. ( )

74\ The glue-like substance that is used in binding materials together is formed from the chemical change of the topsoil. ( )

75\ The subsoil that is used for agriculture, is used to make the glue-like building material. ( )

76\ Genetic factors help the Dorcas gazelle to withstand high temperatures. ( )

77\ Minerals are organic ingredients in the soil. ( )

78\ All the soil ingredients can be seen. ( )

79\ Lifestyles do not affect human growth. ( )

80\ Soil fertility increases as the amount of organic matter in it increases. ( )

81\ All agricultural crops can be grown in the desert environment. ( )

82\ The shape and behavior of living organisms vary according to their habitat and the type of food they depend on. ( )

8 Match The Following

1\ Choose from column (b) what suits it in column (A):

(A)	(B)	
1\ Global Earth's system 2\ Rotation of Earth 3\ Convection currents and gravity	ⓐ	affect the movement of water through water cycle.
	ⓑ	consists of winds that blow in a constant direction.
	ⓒ	causes the disappear of some ecosystems.
	ⓓ	one of the factors that determine the wind direction
(1) (.....)	(2) (.....)	(3) (.....)

2\ (Match each card with its corresponding card):

1- Water level	A - Birds migrate from one area to another according to the changing seasons in search of food and a suitable environment
2- Seasonal migration	B - A type of migratory bird that lives in humid environments such as salt lakes, and is characterized by its pink color and long beak.
3- Flamingos	C - It is the water level in lakes or bodies of water, and it changes according to climatic conditions and human use.
1) (.....)	2) (.....)	3) (.....)

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

1- Anemometer	a. measuring the atmospheric pressure. b. measuring the speed of wind. c. measuring the intensity and speed of precipitation. d. measuring the amount of rain.
2- Weather radar	
3- Rain gauge	

1) (.....) 2) (.....) 3) (.....)

4\ Choose from column (b) what suits it in column (A):

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

1\" ..... " 2\ " ..... " 3\ " ..... " 4\"....."

5\ Choose from column (B) what suits it in column (A):

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

1\" ..... " 2\ " ..... " 3\ " ..... " 4\"....."

9 Compare Between :

1\ Evaporation and condensation:

Exaporation	Condensation
.....	.....
.....	.....

2\ Precipitation and surface run off :

Precipitation	Runoff
.....	.....
.....	.....

3\ Weather and climate

Weather	Climate
.....	.....
.....	.....

4\ Atmospheric Pressure and humidity

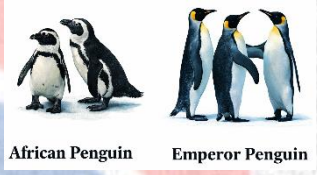
Atmospheric Pressure	Humidity
.....	.....
.....	.....

5\ Compare the African penguin and the emperor penguin in terms of:

1- Habitat:

2- Temperature:

3- Structural adaptations:



6\ Compare the Sphynx cat and the Birman cat in terms of:

1.Hair 2. Gene

10 Various Questions :

(1) Complete the following diagram:

Examples of water bodies on Earth's surface

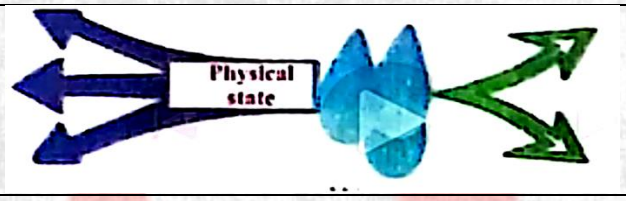
_____ _____ _____ _____ _____

(2) Complete the following diagrams:

When a liquid or gas is heated, it

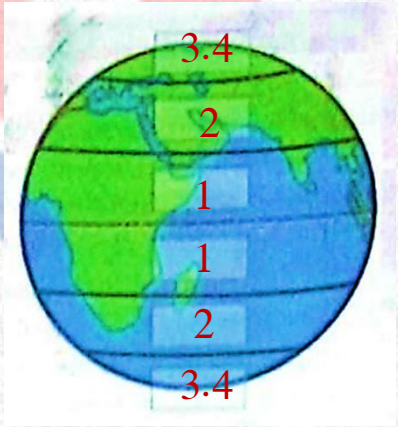
The particles of matter expand → Its density _____ → Its weight _____ → It rises _____ → Cold liquids and gases take their place

(3) Water Cycle Model:

.....	Losing or gaining energy	Movement and Transfer Force	The main driver of the water cycle in nature is .....
.....		.....	
.....	Water	.....	

(4) Use the following words bank on the globe cards:

(very cold – very hot – moderately warm)



(b) Place the number of the appropriate phrase below in the appropriate place on the globe:

1- The sun's rays fall vertically in these areas.(.....)

2- These regions are characterized by moderate temperatures.(.....)

3- The heat in these regions is distributed over very large areas.(.....)

4- We wear heavy clothing in these areas.(.....)

(5) Explain the importance of convection.

....

(6) Explain the role of the gravity in water cycle in nature.

.....

.....

(7) Explain the role of the sun in wind movement.

.....

.....

(8) Look at the following figure, then put (✓) or (×) :



1-Arrow number ② indicates the effect of the gravitational force on water. (.....)

2-Arrow number ③ represents precipitation process. (.....)

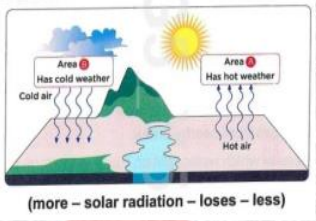
(9) Rearrange the following steps that show how does wind form :

1-(.....) The cold air replaces the hot air.

2-(.....) The air is heated by the effect of Sun's radiation.

3-(.....) The hot air rises up.

(10) Look at the following figure, then complete the following sentences using the words between brackets:



(more – solar radiation – loses – less)

1-Air in area (A) moves upward, because it has ..... density.
2-Air in area (A) becomes hot by the effect of .....
3-Air in area (B) moves downward, because it has ..... density.
4-When air in area (A) moves to area (B), it ..... thermal energy, so it will fall down near the Earth's surface.

(11) Explain the importance of Convection ?

.....
.....

(12) Explain The role of gravity in water cycle in nature?

.....

(13) How does the amount of energy emitted from the sun affect the rate of transpiration in plant leaves?

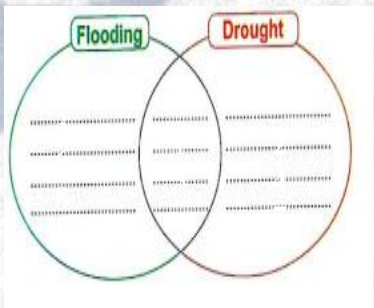
.....
.....

(14) What are the effects of drought, sandstorms and floods?

.....
.....
.....
.....

(15) Write the number of each of the following sentences in Venn's diagram below:

1. Affect human, plants and animals.
2. Occur due to little rain for a long period of time.
3. Dangerous if the ground is frozen.
4. Occur due to extreme hot and dry weather.
5. Extreme weather condition.
6. Occur due to sudden melting of snow.
7. No water available for drinking, growing crops.
8. Occur due to much rain for a long period of time.
9. Harmful for buildings.



(16) Study the following photos that show some weather conditions, then Put (✓) or (✗):

		
Photo (1)	**Photo (2)**	**Photo (3)**

1. In photos (1), (2) and (3), the environments show normal weather conditions. (……..)
2. In photos (1) and (3), there is no water found in the rain guage if it is used in these conditions. (……..)
3. In photo (3), the temperature is very low during daytime. (……..)
4. In photo (2), weather radar is very important to be used. (……..)
5. In photo (1), anemometer measures a very high speed of wind. (……..)

(17) Explain The vole of sun in wind Movement

……

……

(18) Mention The stage of Predicting Weather

……

……

(19) Mention the importance of Concept Weather Map?

……

(20) Mention The importance of Weather ballons?

……

(21) What's the use of Importance or uses

1. Thermometer: ……..

2. Barometer: ……

3. Anemometer: ……

4. Weather radar : ……..

5. Rain gauge: ……



(22) Study the following two pictures, then answer the following questions: (A) Put (o) or (X):


Picture (A)


Picture (B)

1. Animals in both pictures need food, water and habitat to survive. ( )

2. The animal in picture (B) has a body color helps it to survive in its desert environment. ( )

3. Animals in both pictures have a body size similar to its parents. ( )

(B) If you know that the bird in picture (A) is a migratory bird, write 2 reasons for its migration:

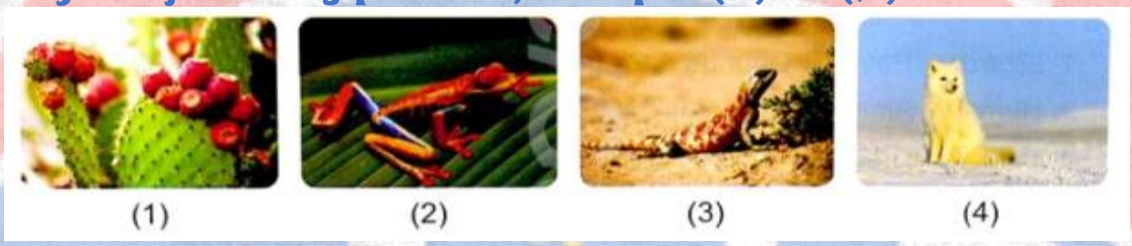
a. ..... b. .....

(23) Classify the following examples of adaptation in animals into structural and behavioral adaptations:

strong sense of smell	move in groups	walk on two legs	have sharp teeth	migration every year

(A) Structural adaptation: .....(B) Behavioral adaptation: .....

(24) Study the following pictures, then put (✓) or (✗):



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

(25) Look at the picture then answer:


Steppe eagle

1- Seasonal migration is a ..... adaptation.

2- Steppe eagles migrate with the aim of ..... and .....

3- The steppe eagle has a sharp and strong beak, and this is a ..... adaptations .

4- The steppe eagle has structural adaptations such as ..... that help it fly long distances.

(26) **How do genetic factors affect the growth of living organisms?**

....

(27) Read the following statements then correct the incorrect ones:

1- Fur color is considered a structural adaptation. (.....)

2- The size of an organism's natural habitat does not affect its growth.(.....)

3- The size of an organism is a characteristic that is not affected by genetic factors. (.....).

4- An unhealthy environment positively affects human life.
(.....)

5- Height and skin color are considered abiotic factors that affect human life.
(.....)

6- Hums increases soil fertility. (.....)

7-Water is one of the basic ingredients of soil. (.....)

8- The soil consists of a mixture of organic matter only. (.....)

9- The large sized particles in the soil make it more water-retaining. (.....)

10- One of the characteristics of sandy soils is its large sized particles and low water retention. (.....)

11-Climate does not affect soil properties. (.....)

12-Removing vegetation keeps the soil from erosion.(.....)

13-The entry of invasive organisms into the natural habitat has a positive effect.
(.....)

14- A natural habitat is a place where living organisms live and their needs are met.(.....)

(28) Identify the type of factor (genetic-environmental- lifestyle):

1- Smoking practice .....

2- Availability of hospitals .....

3-Length of hand fingers .....

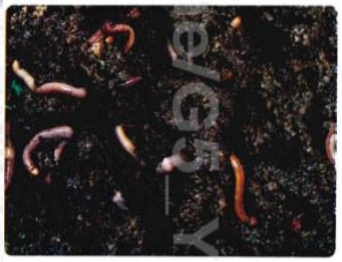
(29) Look at the following figure then complete the following sentences using the words below:

(worms-water-minerals - soil-bacteria- remains of dead plants)

1. This layer that covers Earth's crust is called .....

2. This layer contains organic ingredients like .....and .....inorganic ingredients like .....and .....

3. Decomposers break down the ..... that are found in this layer that increase its fertility.



(30) Look at the following figures that represent particles of different types of soil, then answer the following questions:

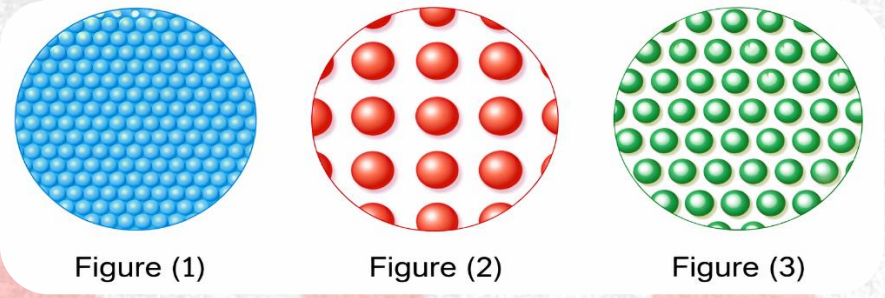


Figure (1) Figure (2) Figure (3)

(A) Choose:

1. Figure (1) represents .....soil. (sand - silt - clay)
2. Figure : Figure (.....) retains small amount of water. (1-2-3)

Figure (3)

(B) Put (✓) or (X):

1. Figure (2) represents yellow sand soil. (.....)
2. Figure (3) is more fertile than figure (1). (.....)
3. Soil in figure (1) allows very large amount of water to flow through its particles. (.....)

(31) Look at the opposite figure then choose the correct answer:

1..... is the type of soil that is found in this ecosystem.

a. Sand b. Silt c. Clay

2. The moist conditions in this ecosystem, lead to.....temperature.

a. very hot b. very cool c. hot

3. The animals that live in this ecosystem are.....

a. lions and cheetahs. b. frogs and mosquitos.

c. gazelles and zebras.



Bog ecosystem

(32) Classify the following activities into natural activities and human activities that lead to habitat destruction:

Hurricanes	*Floods*	*Building houses*	*Destructive earthquakes*	*Making road and airport runways*

Natural activities	Human activities
.....	.....
.....	.....
.....	.....

(33) Look at the opposite picture, then complete the following sentences using the words below:

overgrazing *desertification* *straw* *deserts* *animals* *infertile* *stems* *deforestation* *manure*

1. The opposite picture shows the occurrence of .....process, that happens when the soil becomes .....and turns into .....



2. Among the reasons for occurrence of this process are ....., drought or .....
3. To restore this soil, farmers should use crop remains such as .....and .....or use natural fertilizers such as .....

(34) Look at the opposite photo then answer:



(A) Put (✓) or (X):

1. Human activities increase water pollution. (_)
2. Air pollution can cause water pollution. (__)
3. Using large amounts of fertilizers reduce water pollution. (_)

(B) Complete:

1. To reduce water pollution we have to treat .....and .....water before throwing them into any water body.
2. Using .....fences and .....ponds decrease water pollution.

(35) Look at the following picture, then complete the following sentences using the words below:

pollution	*chemical*	*traditional bricks*	*subsoil*	*glue-like substance*



1. This building material is called .....
2. The process of making this building material can cause .....that damage the environment.
3. Scientists tend to use .....instead of this building material, which is made by .....change of .....that beneath the topsoil.

(36) The stages of soil formation start with:

Weathering → ..... → .....

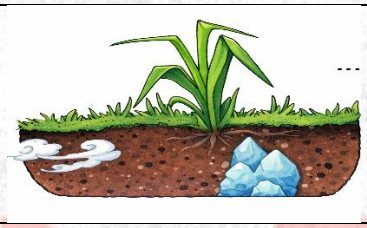
Notice the following picture then answer

a- Organic ingredients in soil such as insects and worms (True - False)

b- Soil contains particles .....of .....and .....

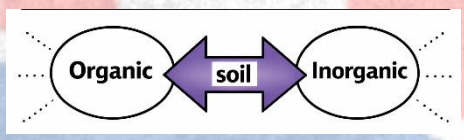
c- Environmental cleaner that decomposes dead organisms called .....

Complete: Soil ingredients:

…… …… ……	

Complete the following chart:

- ……
- ……
- ……



- ……
- ……
- ……

(37) Soil is considered one of the ingredients of the lithosphere of the Earth planet.

*Identify the importance of soil for both humans, animals, and plants:

The importance of soil		
For human	For plants	For animals
……	……	……
……	……	……

(38) Choose the odd word :

1- Sand - humus - clay - silt.

2- Wide eye - plant height - swimming skill - skin color.

3- Air - water - decomposing organisms - rocks.

4- Sunlight - Precipitation - Temperature - Insects.

(39) What is meant by soil? Mention its components and what is the importance of soil for plants?

-……

-……

-……

-……

-……

(40) Compare between sandy soils and clay soils in terms of particles size and cohesion:

Type of soil	Size of particles	Cohesion
Sandy soil	……	……
Clay soil	……	……

مراجعات النـــخبة

Science April Review 2026

Answer form

Science



6th Primary Second Term

Prepared by:
Ms/ Mariam Ragab

SCAN ME

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1 Define (what is meant by) the following:

1\ Runoff : It is the step in which water flows along Earth's surface into a river and then into the ocean or sea.

2\ Collection: It is the step in which rainwater falling on Earth's surface is collected in different water bodies.

3\ Water cycle : It is the continuous movement of water among different water reservoirs.

4\ Convection : It is the process in which heat transfers in liquids and gases, where hot molecules (less density) rise upward, while colder molecules (more density) fall down.

5\ Meteorology: It is the science of studying and predicting the weather.

6\ Meteorologist: The scientist who uses a variety of tools and instruments to study and forecast weather.

7\ Atmospheric pressure: - It is the amount of force that air exerts on its surroundings. -It is the weight of the air above a certain area.

8\ Humidity: It is the measure of how much water vapor is present in the air.

9\ Drought: It is the shortage of water that is available for drinking, growing crops, farming animals and industry.

10\ Flood: It is the increase in the flow of water over the edges of riverbanks and onto the land around a river.

11\ Evaporation : It is the process in which matter changes from liquid state to gas state.

12\ Transpiration :It is a type of evaporation that takes place through the stomata on plant's leaves.

13\ Condensation : It is the process in which matter changes from gas state to liquid state.

14\ Precipitation: It is the process in which water falls on Earth in the form of rain, sleet.

15\ Convection : It is the process in which heat transfers in liquids and gases where hot molecules (less density) rise upward, while colder molecules (more density) fall down.

16\ Adaptation

It is the process that helps living organisms to survive in the environment in which they live.

17\ Structural adaptation
(Physical adaptation)

It is the adaptation that is related to the body structure of a living organism to help it survive.

18\ Behavioral adaptation

It is a change in the behaviors or acts of a living organism to help it survive.

19\ Migration

It is considered a behavioral adaptation in which animals move from one place to another seasonally.

20\ Ecosystem

It is an area that contains living organisms (biotic factors) and nonliving things (abiotic factors) that interact with each other.

21\ Biotic factors

They are living organisms in an ecosystem such as humans, animals and plants.

22\ Abiotic factors

They are nonliving things in an ecosystem such as sunlight, air, water, soil, temperature and precipitation.

23\ Soil

It is the loose layer (delicate skin) which covers Earth's crust.

24\ Minerals

They are the building units (blocks) of rocks.

25\ Humus

It is an organic material that is rich in nutrients produced from decomposition of dead organisms.

26\ Pore spaces (Pores)

They are spaces among the particles of the soil filled with water or air.

27\ Desertification

It is a process by which the land becomes infertile and turns into deserts.

28\ Habitat

It is a place where living organisms live and it provides them with their basic needs.

2 Choose The Correct Answer :

1. The large salt lake in Turkey is dried up due to the increase in the rate of ..... process.

ⓐ melting ⓑ freezing ⓒ evaporation ⓓ condensation

2. Increasing or decreasing of water level in some lakes is due to the transfer of ..... through the water cycle.

ⓐ rocks ⓑ energy ⓒ work ⓓ wind

3. In winter, rain falls due to ..... process.

ⓐ condensation ⓑ evaporation ⓒ collection ⓓ precipitation

4. When water runs through a river then into a sea, this step is called .....

ⓐ runoff ⓑ condensation ⓒ precipitation ⓓ evaporation

5. The distribution of ..... energy on the Earth's surface plays an important role in evaporation process in the water cycle.

ⓐ electrical ⓑ solar ⓒ sound ⓓ kinetic

6. The form of water that is found in air and sometimes we cannot see it is ...

ⓐ liquid water ⓑ water vapor ⓒ ice ⓓ snow

7. The condensed water vapor in clouds returns back to Earth's surface in the form of all the following, except .....

ⓐ water vapor ⓑ rain ⓒ snow ⓓ Sleet

8 The rain falling on the mountain is a form of .....

ⓐ cloud ⓑ precipitation

ⓒ evaporation ⓓ condensation



9 The rain on the mountain runs into the ..... and goes to the ocean

ⓐ Sun ⓑ river

ⓒ ocean ⓓ groundwater

10 When the Sun heats up the water in the ocean, it will .....

ⓐ run off ⓑ condense

ⓒ precipitate ⓓ evaporate

11 Fresh water is stored underground in the form of groundwater by the effect of .....

ⓐ condensation ⓑ electricity ⓒ gravity ⓓ evaporation

12 The weather of the areas near the equator is .....

ⓐ hot and humid ⓑ hot and snowy

ⓒ warm and humid ⓓ warm and snowy

13 Due to the very little rains that precipitate in some areas on Earth, large areas of ..... are formed.

ⓐ forests ⓑ seas ⓒ oceans ⓓ deserts

14 When warm air is cooled, it will move .....

ⓐ upward ⓑ downward

ⓒ forward ⓓ backward

15 The ..... air causes the formation of many desert areas around Earth's surface.

ⓐ cold ⓑ moisted

ⓒ dry ⓓ dusty

16 Wind helps in transporting water through the water cycle by carrying.....

ⓐ sand grains ⓑ small rocks

ⓒ plant leaves ⓓ water vapor

17 When the temperature of air ..... its density .....

ⓐ increases – increases ⓑ decreases – decreases

ⓒ increases – decreases ⓓ decreases – doesn't change

18 During their journey, migratory birds may suffer from all of the following conditions, except …

ⓐ many resting sites are available ⓑ presence of predators

ⓒ shortage of food ⓓ shortage of water

19 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

20 Each environment on planet Earth has specific .....

ⓐ climate only ⓑ plants only

ⓒ animals only ⓓ climate, plants and animals

21 The trait that helps Emperor penguin to keep its body warm, is the .....

ⓐ presence of thin fatty layer

ⓑ presence of thick fatty layer

ⓒ absence of feathers around its eyes

ⓓ absence of feathers around its body

22 Poison dart frog lives in the ..... environment

ⓐ arctic ⓑ Antarctic

ⓒ desert ⓓ tropical rain forest

23 Arctic fox has ..... to warm its body.

ⓐ colorful poisonous skin ⓑ sandy-colored scales

ⓒ thin white fur ⓓ thick white fur

24 Acacia tree and arctic fox live in .....

ⓐ desert environment ⓑ arctic environment

ⓒ rain forest environment ⓓ two different environments

25 Transferring of some properties from parents to offspring occurs in.....

ⓐ living organisms only ⓑ nonliving things only

ⓒ living organisms and nonliving things ⓓ soil, air, water and sunlight

26 The genetic factors transfer from .....

ⓐ living organism to nonliving thing

ⓑ nonliving thing to living organism

ⓒ parents to their offspring
ⓓ offspring to their parents

27 Transferring of genetic factors happens in ……
ⓐ humans only
ⓑ animals only
ⓒ humans and animals
ⓓ humans, animals and plants

28 All the following are inherited traits in humans, except….
ⓐ eye color
ⓑ nose shape
ⓒ fur color
ⓓ ear shape

29 The cold air is …… and always…….
ⓐ less dense – moves down
ⓑ less dense – moves up
ⓒ more dense – moves up
ⓓ more dense – moves down

30 Convection currents occur in the atmosphere when, ……
ⓐ cold air rises up and warm air falls down
ⓑ warm air rises up and cold air falls down
ⓒ both cold air and warm air rise up
ⓓ both cold air and warm air fall down

31 Convection currents in the atmosphere are controlled by ……
ⓐ precipitation process
ⓑ moon's rotation
ⓒ the thermal energy from the Sun
ⓓ the light energy from the moon

32 Heat is transferred through the atmosphere by ……
ⓐ convection
ⓑ conduction
ⓒ reflection
ⓓ absorption

33 The tool that is used to measure the speed of precipitation is ……
ⓐ anemometer
ⓑ barometer
ⓒ thermometer
ⓓ weather radar

34 …… happens due to the shortage of water in an area for a long period of time.
ⓐ Flooding
ⓑ Snowfall
ⓒ Drought
ⓓ Sandstorm

35 The increase in the amount of rain for a long period of time may cause .....

ⓐ flooding ⓑ sandstorm
ⓒ drought ⓓ dust storm

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

ⓐ people ⓑ plants
ⓒ buildings ⓓ animals

37 Floods may occur as a result of ..... and .....

ⓐ gentle rain – melting of snow ⓑ heavy rain – sudden melting of snow
ⓒ gentle rain – freezing of water ⓓ heavy rain – little evaporation of water

38 Dorcas gazelle lives in .....

ⓐ tropical area ⓑ **desert area.**
ⓒ north pole. ⓓ south pole.

39 The adaptation that is related to the body structure of a living organism, is known as ...

ⓐ **structural adaptation** ⓑ behavioral adaptation
ⓒ homeland ⓓ stopover

40 Birds migrate to search for all of the following, except ...

ⓐ best conditions for reproduction ⓑ different food resources
ⓒ another suitable habitat ⓓ **another unsuitable climate**

41 Minerals are the building units of. .....

ⓐ air ⓑ plants
ⓒ water ⓓ **rocks**

42 The material rich in nutrients and increases the soil fertility is known as...

ⓐ decomposers ⓑ **humus**
ⓒ sand ⓓ water

43 Pore spaces of the soil are filled with ....or ,.....

ⓐ minerals - water ⓑ air - sand
ⓒ minerals - sand ⓓ **water - air**

44 Silt particles are larger than . and smaller than .....

ⓐ **clay particles - sand particles** ⓑ sand particles - clay particles
ⓒ big rocks - clay particles ⓓ sand particles - big rocks

45 There are..... between particles of the soil that contain ....or air.
ⓐ water-plants ⓑ pore spaces - water
ⓒ humus - animals ⓓ dead plants-dead animals

46 When the soil contains large amount of sand particles, the flow of water will .....
ⓐ not change ⓑ increase
ⓒ decrease ⓓ stop

47 The soil that retains medium amount of water becomes .....
ⓐ more fertile ⓑ less fertile
ⓒ unsuitable for planting ⓓ very dry

48 Silt soil contains..... particles and its color is .....
ⓐ large - yellow ⓑ medium - dark
ⓒ large - dark ⓓ medium-gray

49 Clay soil allows water to flow..... as it has.....pore spaces between its particles.....
ⓐ fast-small ⓑ slowly-large
ⓒ slowly-small ⓓ fast-large

50 The size of particles of clay soil is .....
ⓐ larger than the particles of sand soil only.
ⓑ larger than the particles of sand and silt soils.
ⓒ smaller than the particles of sand soil only.
ⓓ smaller than the particles of sand and silt soils

51 Human activities like pollution and waste produced by humans led to the increase in ..... gas percentage and ..... in Earth's temperature.
ⓐ carbon dioxide - decrease ⓑ oxygen-increase
ⓒ carbon dioxide - increase ⓓ oxygen - decrease

52 .....is from the invasive species that are found in the Red Sea.
ⓐ Emperor penguin ⓑ Lionfish
ⓒ Poison dart frog ⓓ Lizard

53 Treatment of sewage water and reducing the amount of fertilizers help in..
ⓐ increasing air pollution.
ⓑ increasing soil pollution.
ⓒ increasing water pollution.
ⓓ decreasing water pollution.

54 From the reasons that increase water pollution is…….
ⓐ treatment of sewage and industrial water.
ⓑ getting rid of trash in correct ways.
ⓒ increasing the industries that use water.
ⓓ using soil fences and sedimentation ponds.

55 ……and …… are from the ways to reduce water pollution.
ⓐ Treatment of sewage water - increasing air pollution
ⓑ Using soil fences - keeping green areas
ⓒ Using a large amount of fertilizers - controlling air pollution
ⓓ Getting rid of trash in rivers - keeping green areas

56 Soil scientists and engineers hope to stop depending on traditional bricks and concrete because they……
ⓐ require a lot of energy only.
ⓑ produce a lot of pollution only.
ⓒ require less energy and produce a lot of pollution.
ⓓ require a lot of energy and produce a lot of pollution.

57 The manufacture of…… requires a lot of energy and produces a lot of pollution.
ⓐ bricks glue-like substance
ⓑ cement-glue-like substance
ⓒ bricks - cement
ⓓ glue-like substance - rocks

58 Soil can be made healthy by using……
ⓐ Pesticides ⓑ chemical fertilizers
ⓒ natural fertilizers ⓓ burning of organic matter

59 Which of the following does not cause desertification of soil?
ⓐ Drought ⓑ Cutting down trees
ⓒ regular irrigation ⓓ overgrazing

60 Each of the following factors lead to soil depletion except…
ⓐ Overgrazing ⓑ chemical fertilizers
ⓒ deforestation ⓓ decomposing organisms

3 Complete The Following Sentences :

1) The two basic factors for water cycle are Solar energy and gravity.

2) Water state changes in water cycle by Gaining and losing energy.

3) Snow falls during the process of Precipitation.

4) The gravity causes water to seep into the ground.

5) The water level in lakes increases with increasing rainfall.

6) The processes that require the gaining of energy by water molecules in reservoir are Evaporation , melting and Transpiration .

7) The wind works to transfer energy between reservoirs on the Earth's surface.

8) Reservoirs are storage locations of water on earth .

9) There are three main stages that make up the water cycle: Evaporation, Condensation and Precipitation.

10) Evaporation is the change of the liquid state to the gas state.

11) The transpiration rate represents 10% % of the ratio of water vapor in the air.

12) The clouds occurs when large numbers of water droplets combine together.

13) The water moves on Earth among water reservoirs .

14) The convection currents move in Vertical direction

15) When we put a jar of hot water blue color on the top of a jar with cold water red color, the colors will not mixing

16) The dry air forms deserts.

17) The regions near the equator are very hot.

18) Flamingos migrate to the large salt lake in Turkey when the weather becomes warm , and they feed on algae which are found in this lake.

19) Formation of fog is due to the condensation of water vapor on a field in early morning.

20) Energy of the Sun causes the changing of liquid water into water vapor by evaporation process.

21) The amount of solar energy that reaches Earth's surface affects the rate of evaporation process in the water cycle.

22) Water vapor comes out from plant leaves through the stomata

23) Drying up of a shallow pond in summer is an example of evaporation process.

24) Clouds are made up of millions of tiny water droplets.

25) When the water droplets in the clouds become too heavy, it causes precipitation process.

26) Water starts to move or change its way of movement when gravity force affects its.

27) Water collects in some water reservoirs such as oceans , seas and living organisms.

28) The weather of the area far away from the equator is very cold because the sun rays fall very inclined on Earth's surface at this area.

29) Cold water has more density than warm water, so it moves under the warm water.

30) The Sun produces the energy which causes the movement of convection currents that produces ocean currents and winds .

31)

32) Due to convection currents, hot air moves above cold air.

33) Complete the following sentences using the words below :

rotation – deserts – direction – upward – solar radiation – winds – rain – downward

1) The global wind system of Earth consists of winds that blow in a constant direction over long periods of time.
2) The direction of wind is determined by the amount of solar radiation received by Earth and rotation of Earth.
3) When warm air contains enough water vapor, it loses this water in the form of rains .
4) When warm air is cooled, it moves downward while cold air moves upward when it is warmed.
5) Dry air causes the formation of large areas of deserts around Earth's surface.

34) Both of environmental factors and genetic factors affect the growth of living organisms.
35) Thick fur is an example of structural adaptation for animals that live in cold climate.
36) Both of the Red Sea and the Nile River are two important stopovers in Egypt for migratory birds.
37) Bird migration helps them to search for different food sources and suitable habitats to live in.
38) Emperor penguin lives in Antarctic and it has a thick fatty layer and its skin is covered with dense feathers to keep its body warm.
39) African penguin has a circle of skin that doesn't have any feathers around each of its eyes.
40) Some plants like palms and acacia trees live in the desert environment in Egypt.
41) Some desert plants can store water in their leaves and stems.
42) Some desert plants have thick leaves to store water.
43) Some desert plants have thorns on their stems and branches to protect them from herbivores.
44) Living organisms of an ecosystem include humans, animals and plants .
45) Any ecosystem contains biotic factors and abiotic factors.
46) Abiotic factor include all nonliving things.
47) Plants and animals live in the same ecosystem, depend on each other to live and reproduce.
48) Complete the following sentences using the words below:

Sphynx	Birman	plants	animals	genetic	environmental

1. A Birman kitten inherits the trait of long silky hair, while a Sphynx kitten inherits the trait of hairless body from its parents.
2. Genes determine the fur color in animals and the flower color in plants .
3. Availability of food, clean water and health care are examples of environmental Factors that affect our health, while genetic factors determine our body structures like hair color and eye color.

49) All living organisms inherited genetic factors which transferred from parents to their offspring.

50) The type of cats that inherits its hairless body from its parents, is known as Sphynx cats .

51) Sphynx cat doesn't have the genetic factor for long hair which is found in Birman cat .

52) Color and place of the flower are two genetic factors in plants.

53) The way of your earlobes hang and the length of your fingers are two inherited traits controlled by genes that are found in the cell nucleus.

54) Air is considered one of the Abiotic factors.

55) Palm trees are adapted to Hard condition (hot and dry) in the desert.

56) Fish migration is considered one of the Behavioral adaptations.

57) Environmental factors that affect a living organism include Amount of light and Habitat size

58) Structural adaptations of a living organism are related to its body structure.

59) The Suitable new habitat – breeding is considered one of the reasons for birds returning to their habitat.

60) A chrysanthemum plant grows when the day is shorter than the night.

61) Light is one of the environmental factors.

62) The factors that affect the internal and external development of a human being a genetic factors , environmental factors and lifestyle .

63) The Sphinx cat and the Birman cat belong to the Felis catus cat breed.

64) Genes found in the nucleus of the cell.

65) When air is heated, it expands as its molecules move away from each other.

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66) The horizontal movement of air is called wind , whereas the vertical movement of air is called air current .

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67) Complete the following sentences using the words below

flooding – drought – decrease – increase – dry – wet

1-Extreme hot temperatures for a long period of time, may cause drought

2-Heavy rain for a long period of time, may cause flooding .

3-Sandstorms increase the chances of car accidents.

4-Dust storms decrease the water quality in irrigation canals.

5-Floods result in formation of wet lands.

6-Strong winds may blow up sand from a dry area such as deserts.

68) Types of soil differ from each other in color and texture .

69) The soil is the shelter for many living organism such as insects , worms fungi and bacteria.
70) The soil is composed of many inorganic ingredients as air , water , rocks and minerals.
71) The building units of rocks are called minerals .
72) The remains of dead plants and animals are decomposed into chemical nutrients such as carbon nitrogen and oxygen .
73) Organic material in the soil includes the remains of dead plants and animals.
74) The spaces among the particles of the soil are called pore spaces and they are filled with water or air .
75) According to the size of particles in the soil, sand are the biggest particles while clay are the smallest particles.
76) Types of plants in the soil affect the temperature weather conditions of the ecosystem.
77) During rainfall, the soil of humid areas retain large mount of water.
78) When water level increases in some humid areas it become waterlogged contains a little amount of air .
79) Sand soil is dry loose soil, so large trees can't grow in it.
80) Savannas are dry grassland ecosystems that contain sand
81) Herbivores like gazelles can live in savannah ecosystem that has grasses and small plants.
82) Increasing the inclination of the land leads to the increase of erosion process of the soil.
83) The land becomes infertile due to deforestation drought or overgrazing that cause desertification .
84) Overuses of pesticides and chemical fertilizers cause depletion of the soil.
85) Natural habitats include desert, forest , stream oceans and grassland .
86) From natural changes that cause habitat destruction are hurricanes , fires, floods and volcanic eruptions.
87) Human activities cause the increase in carbon dioxide gas percentage and lead to the increase in Earth's temperature .
88) Changing natural spaces as hills, prairies and valleys into factories led to deforestation .

89) To reduce water pollution we have to keep green areas, and treat sewage and industrial water.
90) Using soil fences and sedimentation ponds help in reducing water pollution.
91) Soil scientists hope to stop using traditional bricks and concrete that are used in building houses.
92) To produce traditional bricks and cement, a lot of energy is required and a lot of pollution is produced.
93) The glue-like substance that is used to bind building materials together is formed by the chemical change of the subsoil
94) Engineers used the glue-like substance to sustainable build homes instead of traditional bricks.
95) Human , animals and plants are from the biotic soil ingredients.
96) The clay soil particles Small in size.
97) The process of moving rocks from one place to another is known as erosion .
98) Silt soil are Medium in size.
99) Weathering and erosion are from the basic processes in soil formation.
100) Humus are the remains of organisms that have died and decayed.
101) Sand soils are characterized by low fertility
102) Rocks are broken up into smaller and smaller pieces through the process of weathering .
103) Inorganic ingredients of the soil are Air - water - Rocks and minerals .
104) It is available in the natural habitat Food , water and shelter as essential resources for the survival of living organisms.
105) One of the advantages of using sustainable soil improving the soil and conservation
106) Natural factors that increase soil fertility humus
107) One of the ways to preserve the soil planting trees and crop rotation .
108) One of the factors that lead to the destruction of natural habitat by humans deforestation – pollution .
109) When plants and animals are unable to adapt, they may face the risk of Extinction
110) To reduce water pollution resulting from the overpopulation and industries Treat wastewater

111) From the factors that lead to increasing soil erosion Removing plants - increasing inclination of land .

112) Fertility can be restored to the soil by adding nutrients (crop remain - Natural fertilizers)

4 Write Scientific Term:

1) A process by which plants get rid of excess water in the form of water vapor through stomata. (Transpiration)

2) It happens when the water droplets that make up clouds become heavier and fall due to gravity. (Precipitation)

3) It is caused when air warmed by the solar radiation rises and then replaced by cooler air that flows from nearby areas. (wind)

4) Large areas of land that are formed due to the effect of dry air. (deserts)

5) The cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to Earth in the form of rain, sleet or snow ..(Water cycle)

6) It is the method by which heat transfers within liquids and gases, where hot molecules rise upward, while colder molecules fall down (Convection)

7) An important stopover in Egypt for migratory birds, that includes marine, coastal and mountain environments. (The Red Sea)

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

9) Behaviors that living organisms inherit due to the effect of genetic factors. (Inherited behaviors)

10) Behaviors that living organisms get due to the effect of environmental factors. (Acquired behaviors)

11) It contains biotic factors and abiotic factors that interact with each other. (Ecosystem)

12) The factors that include living organisms in an ecosystem. (Biotic factors)

13) The factors that include nonliving things in an ecosystem. (Abiotic factors)

14) It is a desert biome that has a cold climate all the year. (Antarctic region)

15) It is the factor that controls which trait get inherited from parents to their offspring. (Genetic factor)

16) They are responsible for determining the body feature, and present in the cell nucleus. (Genes)
17) Traits that play an important role in determining the shape and structure of an organism.(Hereditary traits)
18) The process by which a living organism becomes capable of living in an environment in a way that enables its survival.(adaptation)
19) An organelle in the cell responsible for reproduction and building special information about the cell. (nucleus)
20) It is the method by which heat of the Sun transfers from the space to Earth's atmosphere… (Radiation)
21) The falling of snow to the Earth's surface, when water droplets in clouds are changed into ice crystals.(Snowfall)
22) The vertical movement of air in the atmosphere. (Air current)
23) The horizontal movement of air in the atmosphere. (Wind)
24) The force that pulls big and heavy water droplets toward the ground causing precipitation. (Gravity force)
25) It is a natural phenomenon in which extreme dry and hot weather affect an area for a long period of time. (Drought)
26) It is a natural phenomenon in which the level of water in a river increases until it overflows onto its banks. (Flooding)
27) It is a natural phenomenon in which very strong winds blow up dust that reduces the visibility during driving cars. (Dust storm)
28) It is the science of studying and predicting the weather. (Meteorology)
29) The scientist who uses a variety of tools and instruments to study and forecast weather. (Meteorologist)
30) It is the amount of force that air exerts on its surroundings. (Atmospheric pressure)
31) It is the measure of how much water vapor is present in the air. (Humidity)
32) The loose delicate layer of the earth. (The Soil)
33) Spaces between soil particles filled with water or air .(Pore spaces (Pores))
34) A type of soil characterized by its large sized (Sand Soil)

35) Organic components rich in nutrient produced by the decomposition of dead organisms. (Humus)

36) Poorly aerated soil and it has small grains. (Clay soil)

37) It is a place where living organisms live and where water, food, and shelter are available. (Natural habitat)

38) It is the depletion of one of the natural resources provided by the habitat or taking it completely. (depletion)

39) Species of organisms that enter the ecosystem and cause disruption (invasive species)

5 Give Reasons For :

1\ The gravitational force is the main factor of water cycle. Because it pulls water and ice during precipitation, pulls water down in runoff

2\ The rareness of the precipitation of the rainfall in the deserts. Due to increasing the evaporation rates due to high temperature

3\ The temperatures are different around the world. Due to unequal distribution of sunlight on the earth

4\ Dry air forms deserts. because the warm air flows away from its place to another one, it cools and descend until it reach earth's surface again and become dry

5\ The regions near the two poles are very cold. because The sun rays fall very inclined on earth's surface in the area far away from equator

6\ The regions near the equator are very hot. Because the sun rays fall perpendicular on earth's surface in the area near the equator

7\ Deserts formation. Due to blowing of hot dry air over an area

8\ Formation of fog in the early morning. Due to condensation of water vapor that is found in the air.

9\ Changing of water from one state to another. Due to gaining or losing of thermal energy.

10\ The weather in the area near the equator is hot. Because the sun rays fall perpendicular on Earth's surface giving high effect of heat.

11\ The difference in temperatures and densities in water of oceans and atmosphere. Because the heat of the Sun causes unequal heating of land and oceans.

12\ .The water cycle is very important for all living ogranisms on Earth's surface. Because it provides water for all living organisms and regulates weather on Earth.

13\ On adding warm water to cold water without shaking, the warm water stay above cold water without mixing. Due to the effect of convection, as warm water has less density than cold water, so warm water will stay above cold water.

14\ The formation of wind is determined by the amount of solar radiation received by Earth. Because warm air rises upward when it is heated by solar radiation and it is replaced by cooler air that flows from nearby areas.

15\ The water cycle is a Continuous Process? because water evaporates - Condenses and Precipitates and flows back To Earth repeating Cycle

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16\ Evaporation and Condensation are opposite Processes ? because Evaporation is change from liquid state To gas state (gain energy and Condensation Change from gas State To liquid State (lose energy)

17\ Small dorcas gazelle is similar to its parents.
Because it gets some genetic factors from their parents.

18\ Falcons and eagles migrate to Egypt in winter.

Because Egypt in winter has moderate climate conditions.

19\ Birds migrate from one place to another place.

To search for:

-The best conditions that help them reproduce and preserve their species.

-Different food resources.

- Suitable new habitats.

20\ African penguin has a circle of skin that doesn't have any feathers around each of its eyes. To help its body cool fast in hot climate.

21\ Most of desert plants have short extended roots near Earth's surface.

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

22\ A birman kitten has a long and silky hair.

Because it inherits this trait from its parents.

23\ Sphynx cat doesn't have long hair.

Because it doesn't have the genetic factor for long hair.

24\ Your lifestyle choices affect your health.

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

25\ Plants manage to adapt to warm and dry climates?

To survive and grow

26\ Some plants have long roots ?To search for deep water

27\ The length and texture of cats' hair vary for the same breed. Due to variations in inherited genetic factors from the parents

28\ Snow forms on The Top of The Mountain while water remain liquid at bottom? because when height increase Temperature decreases.

29\ Meteorologists represent weather forecasts as Probability ratios? because Sometimes un expected and quick changes happen in weather Conditions.

30\ The spinning of Paper spirals over a turned on lamp? Due To Convection Current where warm air rises up while cold air move down.

31\ Plants grow slowly in The Windless area of the Mountain ? Due To lack of air Circulation and Reduce Carbon dioxide exchange .

32\ The Temperature in The desert is high during the day and low at night? because deserts are characterized by extreme hot and dry weather.

33\ The atmospheric Properties differ at The mountain's Summit compared To its Properties at the mountain's base ? because atmospheric Pressure, Temperature and density decrease as we go from The bottom of mountain To its Top

34\ When air is heated, it expands. Because when air is heating the speed of its molecule increase and move away each other so it will expand

35\ Convection currents in the atmosphere are considered as vertical movements of air. Because when air is heated its density decrese and rises up and cold air have more density and go down.

36\ Extreme weather phenomena became more stronger in many places around the world. Due to global climate change

37\ Floods have some benefits. Because some ecosystems depend on floods such as ecosystems along the Nile

38\ Sandstorms have harmful effects on human health. Because sandstorms harm the human eyes and respiratory system

39\ Flooding is more dangerous if the ground is frozen. Because the ground cannot absorb the water

40\ It is easy to see a sandstorm from a long distance. Because it extends for several kilometers long and its height may reaches hundreds of meters.

41\ Snow falls on some places. because The air in Clouds is Cold enough To Change the water droplents in To ice Crystal That fall To earth's surface

42\ Although predicting the weather is a difficult task, meteorologists are able to make accurate predictions. because The Prediciting weather Pass. in Three Step, Collecting Data - Analyzing Data, 3- Collecting it together

43\ Air movement (in the term of temperature) The hot air move up has low density, while Cold air move down has high density

44\ Composition of soil differs from one place to another on Earth's surface.
Due to the effect of climate and types of rocks found in this soil.

45\ Soil is very important for plants.
Because soil provides the plants with its basic needs for growth as it contains air, water and nutrients.

46\ Importance of humus for soil and plants.
Because humus increases the soil fertility and helps plants to grow.

47\ Water can flow very fast through sand soil.
Because it has large amount of pore spaces between its particles.

48\ The soil that retains medium amount of water is more fertile.
Because it keeps its organic materials and this helps in the plant growth.

49\ Clay soil can retain more amount of water.
ecause it has small amount of pore spaces between its particles.

50\ Large trees can't grow in savannas grassland ecosystems.
Because its soil is sand soil which is dry and loose that drains water quickly

51\ The soil in a bog ecosystem is wet most of the time.
Because it is rich with clay particles that retain much water very well.

52\ The increase in the inclination of the land causes the erosion of the soil.
Because the speed of moving water over the land increases, so the soil particles are washed down by moving water.

53\ Scientists and farmers should use crop remains like straw and stem in the soil.
To add nutrients to the soil, so the soil can be restored.

54\ Desertification process increases recently.
Due to deforestation, drought and overgrazing.

55\ Forest fires may have some benefits.
Because forest fires can release seeds from closed fruits.

56\ We should keep green areas and reduce the amount of fertilizers.
To reduce water pollution.

57\ Soil scientists and engineers hope to stop using traditional bricks and concrete in building houses.
Because they need large amount of energy to be manufactured and produce a lot amount of pollution.

58\ The type of soil vary from one environment to another. Due to the effect of climate and types of rocks found in this soil, and this is the reason for the presence of different types of soil (sand soil - silt soil - clay soil).

59\ Decomposers are considered environmental cleaner? Because: They clean the environment by decomposing the dead organisms. They return back nutrients into the ecosystem again.

60\ Over population may cause the destruction of natural habitats. because overpopulation leads to less food, water, shelter and space for other populations (organisms) that live in the same habitat

61\ Plants and animals depend on the soil. Plants need soil because it provide the plant with its basic needs for growth (air-water- nutrients)
animals: it is home (shelter) to many different living organism (worms - insects - fungi - bacteria)

62\ Adding sand and silt helps in the soil restoration. because they improve the soil (restore fertility of the soil)

6 What Happens To :

1) Sunlight falls perpendicularly on the Earth's surface. The sun rays concentrate on a small area and the weather becomes very hot.

2) Increasing evaporation of the lake water. The water level decreases and it may dry completely

3) What happens to water on the Earth's surface when its temperature rises due to the sun? Evaporation process will happen And water change from liquid state to gas state

4) What happens when water falls on the earth? It flows on earth surface to a large water bodies

5) Place a jar with hot water (blue color) on the top of a jar with cold water (red color) (relative to mixing colors) No mixing in colors will happen

6) The difference of air particles temperature (relative to convection currents) Hot air particles (low density) rises up while cold air particles (more density) falls down

7) very dry wind blows over an area of the land. It forms desert

8) The air temperature if there is no wind on Earth. The regions around the equator become extremely hot and the poles will completely freeze.

9) The movement of air when solar radiation heats up the air in an area.
Convection current will happen Air heated its density decrease and rises up
Cold air (more density) move down

10) If you cover some leaves in a plant with a plastic bag, then put this plant in the direct sunlight for awhile. Water droplets will form inside the bag.

11) If moist air touches a cold bottle of water. Water vapor which is found in air condenses on the surface of the bottle.

12) If water vapor in air condenses in the sky. Clouds are formed in the sky.

13) If the water droplets in the clouds become very heavy. Water droplets fall in the form of rain. (precipitation will happen)

14) To the weather if the sun rays fall very inclined on an area. The weather of this area becomes very cold.

15) To the density of air if the cold air is warmed by the effect of solar energy. The density of the air will decrease (becomes low).

16) If the environmental conditions change in the homeland in which some migratory birds live.
They will migrate to another suitable habitat.

17) To the living organisms in an ecosystem, if water and light are not available.
Living organisms can't survive and will die.

18) To the plants in an ecosystem, if they receive too intense light.
The too intense light may damage the plant's parts and cause their drying or burning.

19) To two similar plants, if they are exposed to the same intensity andduration of light.
The two plants will grow with the same rate.

20) If African penguin has dense feathers around each of its eyes.
Its body doesn't cool fast at high temperatures.

21) If arctic fox has a thin fur instead of a thick fur.
It can't keep its body warm at low temperatures.

22) If arctic fox has a black fur instead of a white fur.
It can't hide in snow.

23) If the genetic factor of hairless body trait is transferred from sphynx cats parents to their offspring.
The trait of hairless body appears on the offspring.

24) If the poison dart frog doesn't have big eyes.
It can't see in the dark at night

25) If the Arctic fox does not have a thick fur.
It will not able to stay warm or survive in cold temperature and it may die.

26) When a green plant is placed away from the source of sunlight (in terms of growth direction) ? The plant grows towards the light source.

27) Healthcare services are not available in some places. health and growth will be negatively affected

28) The water movements when boiling it in a pot. It hot water rises upward and cold water move down due to convection.

29) The water droplets in clouds when they become bigger and heavier.
Precipitation process will happen (due to effect of gravity force)

30) The buildings when they are subjected to strong floods. They may be damaged by moving or breaking them.

31) The solar panels when dust accumulates on them. Solar panels stop generating energy.

32) light bulb is placed 5cm from a container of sand and another container of the same volume of water (which heat up faster). Sand is heated faster than water

33) Placing Spiral paper above unlighted lamp. The spiral Paper don't spin

34) The severe decreasing in temperature in some places (in the term of precipitation) The falling of snowfall or hail

35) Rising higher in relation To atmospheric Pressure and Temperature ?
atmospheric Pressure and Temperature will decrease

36) The air Cools and water vapor Condenses at the sky ? Clouds are formed

37) The amount of water vapor in the air increases ? humidity will increase

38) Sand and water at night after They exposed To sunlight at The day ? At night Sand cools and water is warm

39) The ice melts suddenly? It Causes flood

40) The weather is dry for a long Time? Drought will happen And desert will formed

41) Accumulation of dust over solar Panels ? stop generating energy

42) The plants if the soil becomes unhealthy. The environment will change leading to death of plants that grow in this environment.

43) The soil if the temperature in the environment increases.
The soil will dry and may lose its nutrients.

44) The soil if it does not contain any decomposer organisms.
The soil will lose the chemical nutrients that are found in dead plants and animals, so the soil will not be fertile.

45) The rocks if they are affected by weathering process. The rocks are broken down into small pieces such as particles of sand, silt and clay.

46) The soil if it has large amount of pore spaces between its particles.
It allows water to flow fast through it.

47) The soil fertility if the soil hold medium amount of water.
The soil keeps its organic materials, so it becomes more fertile.

48) The soil when there is much water in a humid area. The soil becomes waterlogged soil and contains very little amount of air and this doesn't help roots of plants to grow in it.

49) The soil when fertile agricultural lands are converted into factories or pastures.
Soil depletion may happen.

50) The soil when farmers increase the planted areas. The fertility of the soil will increase, so the soil can be restored.

51) The habitat when the number of predators decreases.
The number of preys increases greatly and this leads to the lack of resources in this habitat, so it causes habitat destruction.

52) Living organisms to stay alive if they are affected by the change in their habitates due to climate change. They change their behaviors to adapt to their new habitats.

53) The sea water if industrial water is thrown into the sea without treatment. The sea water will be polluted.

54) If the soil particles is large in size.
It allows water to flow fast through it. (Retaining water is small).

55) For organisms if resources are scarce in an area? migrate to another ecosystem or it will die

56) Materials are burned under extremely high temperatures using large amounts of coal? it causes pollution of air

7 Put ✓ Or ✗ :

1\ The amount of thermal energy that reaches the water bodies on Earth's surface affects the rate of condensation process in the water cycle. (✗)

2\ Electricity is the force which causes moving down of water from higher places to lower places on Earth. (✗)

3\ Evaporation is the process of water changing from a liquid state to a gaseous state. (✓)

4\ The oceans are the main source of evaporation in the water cycle. (✓)

5\ Climate change does not affect the water cycle. (✗)

6\ Ground water flows due to gravity from low - lying areas to high - lying areas. (✗)

7\ Wind transfers energy between reservoirs on the Earth's surface. (✓)

8\ Evaporation occurs as a result of the gaining of heat energy. (✓)

9\ Small lakes dry up as a result of precipitation. (✗)

10\ Condensation occurs when a gas is heated and turns into a liquid. (✗)

11\ When the sun's rays are very slanted, we feel hotter. (✗)

12\ Convection currents in Earth's atmosphere help to determine the nature of regional climates. (✓)

13\ The process of condensation is the changing of hot water into water vapor. (✗)

14\ The convection currents moves horizontally. (✗)

15\ Warm moist air is denser than cold one. (✗)

16\ Water level in lakes is decreased due to increased evaporation. (✓)

17\ The difference of air particles temperature (relative to movement) the warm air move upward and the cold move downward. (✓)

18\ When air is cooled its molecules spread away from each others. (✗)

19\ It is easy for animals to live in the desert environments. (✗)

20\ Thorns on a plant stem, is an example of structural adaptation. (✓)

21\ Some animals migrate from one place to another seasonally. (✓)

22\ Birds migrate to areas that have no food or water. (✗)

23\ Dorcas gazelle can live in both desert area and semidesert area. (✓)

24\ Availability of water is a genetic factor that affects the growth of trees and shrubs in an ecosystem. (✗)

25\ Different types of environments have different types of plants and animals. (✓)

26\ Around each eye of an Emperor penguin, there is a circle of skin that doesn't have any feathers. (✗)

27\ Acacia trees and palms are adapted to live in desert environment. (✓)

28\ When the rain falls in desert environment, some plants reach the flowering stage quickly. (✓)

29\ Ecosystems include living organisms only. (✗)

30\ Ecosystems contain biotic factors and abiotic factors. (✓)

31\ Abiotic factors of an ecosystem can eat, breathe and grow. (✗)

32\ Biotic factors of an ecosystem include sunlight, air and water. (✗)

33\ All living organisms inherited traits from their parents. (✓)

34\ Inherited traits don't affect the structure of living organisms. (✗)

35\ Sphynx cat doesn't have any hair or have only very fine hair. (✓)

36\ All Birman cats have white, very short and silky hair. (✗)

37\ There is no Sphynx cat has long hair like Birman cat. (✓)

38\ Transferring of inherited traits through generations of desert plants, make them more adapted to survive in extreme desert conditions. (✓)

39\ Inherited traits in Sphynx cats include hairless body, eye color and ear shape. (✓)

40\ Environmental and genetic factors affect the behaviors, structure and the growth of living organisms. (✓)

41\ Cold air has more density than that of hot air. (✓)

42\ By increasing the temperature of air, its density decreases. (✓)

43\ Convection currents in the atmosphere are usually controlled by Earth's rotation. (✓)

44\ Anemometer is used to measure the speed of precipitation. (✗)

45\ Rain gauge and weather radar have the same function. (✗)

46\ Transfer of heat by convection occurs in solids, liquids and gases. (✗)

47\ The hand that is placed above a lighted candle feels hot because hot air has high density so it moves up. (✗)

48\ Heavy rain may cause extreme drought condition . (✗)

49\ When rain doesn't fall for a long period of time, soil may get dry and plants may die. (✓)

50\ Although flooding is harmful, it also has some benefits. (✓)

51\ Sandstorms blow up from a dry area such desert. (✓)

52\ Sandstorms may reduce the visibility during driving cars. (✓)

53\ Water loses its heat slower than sands(✓)

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54\ The anemometer is used in determine air pressure. (✗)

55\ The spinning of the paper spirals over a turned - on lamp indicates the occurrence of convection currents (✓)

56\ Clay soil has a gray color while sand soil has a yellow color. (✗)

57\ Clay soil retains more amount of water than sand soil. (✓)

58\ The size of sand particles is smaller than that of silt particles. (✗)

59\ Water flows through sand soil faster than in clay soil. (✓)

60\ Soils differ in their color and their ability to hold water. (✓)

61\ The climate doesn't affect the types of plants that can grow in an area. (✗)

62\ Humid areas retain large amount of water during rainfall. (✓)

63\ Healthy soil is very important to keep the life on Earth. (✓)

64\ Converting fertile agricultural lands into cities leads to increase the deforestation of the land. (✓)

65\ The soil can't be restored again. (✗)

66\ Adding natural fertilizers like animal manure to the soil help in soil restoration. (✓)

67\ When the soil is irrigated regularly, the quality of the crops will increase. (✓)

68\ Removing plants leads to the soil erosion. (✓)

69\ Human activities only lead to habitat destruction. (✗)

70\ Streams and oceans are examples of natural habitats. (✓)

71\ Cleaning up water from pollution is more effective than preventing it. (✗)

72\ To build traditional bricks, we need a lot of energy. (✓)

73\ Depending on traditional bricks and concrete causes harms for the environment. (✓)

74\ The glue-like substance that is used in binding materials together is formed from the chemical change of the topsoil. (✗)

75\ The subsoil that is used for agriculture, is used to make the glue-like building material. (✗)

76\ Genetic factors help the Dorcas gazelle to withstand high temperatures. (✓)

77\ Minerals are organic ingredients in the soil. (✗)

78\ All the soil ingredients can be seen. (✗)

79\ Lifestyles do not affect human growth. (✗)

80\ Soil fertility increases as the amount of organic matter in it increases. (✓)

81\ All agricultural crops can be grown in the desert environment. (✗)

82\ The shape and behavior of living organisms vary according to their habitat and the type of food they depend on. (✓)

8 Match The Following

1) Choose from column (b) what suits it in column (A):

(A)		(B)
1 Global Earth's system 2 Rotation of Earth 3 Convection currents and gravity	ⓐ	affect the movement of water through water cycle.
	ⓑ	consists of winds that blow in a constant direction.
	ⓒ	causes the disappear of some ecosystems.
	ⓓ	one of the factors that determine the wind direction
1 (ⓑ)	2 (ⓓ)	3 (ⓐ)

2) (Match each card with its corresponding card):

1- Water level	A - Birds migrate from one area to another according to the changing seasons in search of food and a suitable environment
2- Seasonal migration	B - A type of migratory bird that lives in humid environments such as salt lakes, and is characterized by its pink color and long beak.
3- Flamingos	C - It is the water level in lakes or bodies of water, and it changes according to climatic conditions and human use.
1 (C)	2 (B)	3 (A)

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

1- Anemometer	a. measuring the atmospheric pressure. b. measuring the speed of wind. c. measuring the intensity and speed of precipitation. d. measuring the amount of rain.
2- Weather radar	
3- Rain gauge	
1 (B)	2 (C)	3 (D)

4) Choose from column (b) what suits it in column (A):

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

5) Choose from column (B) what suits it in column (A):

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

9 Compare Between :

Concept 4.1

1) Evaporation and condensation:

Exaporation	Condensation
is The Process in which matter changes from liquid state to gas State	is The Process in which matter changes from gas State To liquid State

2) Precipitation and surface run off :

Precipitation	Runoff
is the Process in which water falls on earth in form of rain, snow, sleet	the water flows along surface. Into ariver and then into sea or oceans

3) Weather and climate

Weather	Climate
The Condition of atmosphere for short Time such as week	The Condition of atmosphere For long Period

4) Atmospheric Pressure and humidity

Atmospheric Pressure	Humidity
it is a weight of The air above a Certain area	It is the measure of how much Water vapor is Present in air

5) Compare the African penguin and the emperor penguin in terms of:

1- Habitat:

2- Temperature:

3- Structural adaptations:



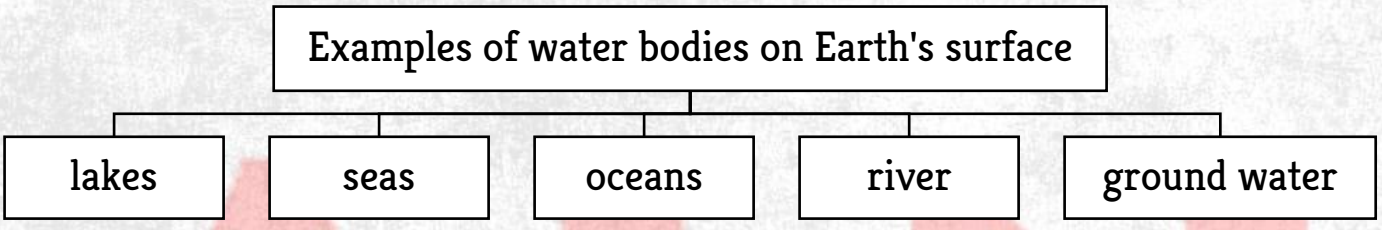
Comparison	Emperor Penguin	African Penguin
Habitat	Antarctic	Along the coast of South Africa
Temperature	Cold	Hot
Structural adaptation	Has thick blubber and body covered with dense feathers	Black circle around each eye and a circle of skin that doesn't have any feathers

6) Compare the Sphynx cat and the Birman cat in terms of:

1. Hair **2. Gene**

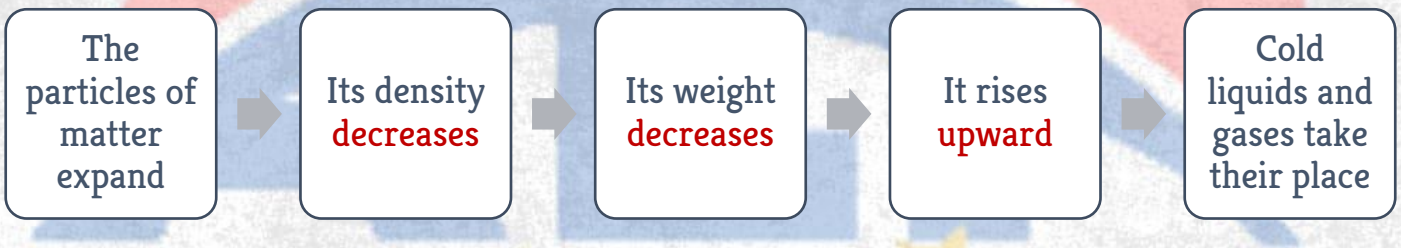
Comparison	Birman cat	Sphynx cat
Hair	Has long, silky hair with different colors.	It does not have any hair or may have only very fine hair.
Gene	Birman cat	Sphynx cat

(1) Complete the following diagram:

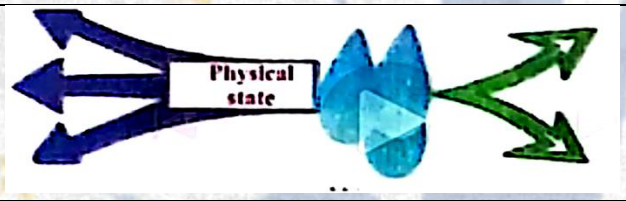


(2) Complete the following diagrams:

When a liquid or gas is heated, it

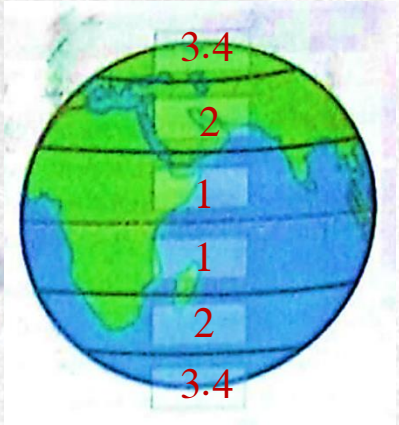


(3) Water Cycle Model:

Solid	Losing or gaining energy	Movement and Transfer Force	The main driver of the water cycle in nature is The sun
Liquid		Wind Movement	
Gas	Water	Gravity	

(4) Use the following words bank on the globe cards:

(very cold – very hot – moderately warm)



(b) Place the number of the appropriate phrase below in the appropriate place on the globe:

1- The sun's rays fall vertically in these areas.(very hot) (1)

2- These regions are characterized by moderate temperatures.(moderately warm)(2)

3- The heat in these regions is distributed over very large areas.(very cold)(3)

4- We wear heavy clothing in these areas.(very cold)(4)

(5) Explain the importance of convection. 1- formation of clouds
2- formation of wind and ocean currents 3- determine the regional climate

(6) Explain the role of the gravity in water cycle in nature.
1- It pulls rain from the clouds (Precipitation)
2- It pulls water under the ground (Groundwater)
3- Convection Currents
4- Moving water on Earth's Surface (run off)

(7) Explain the role of the sun in wind movement. Wind is generated when the warm air rises upward by the effect of sun's radiation and it is replaced by cooler air that flows from nearby areas

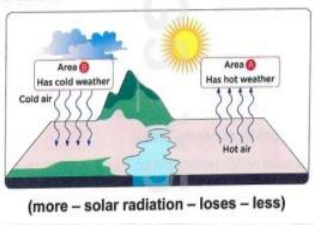
(8) Look at the following figure, then put (✓) or (×) :



1-Arrow number ② indicates the effect of the gravitational force on water. (✓)
2-Arrow number ③ represents precipitation process. (✓)

(9) Rearrange the following steps that show how does wind form :
1-(3) The cold air replaces the hot air.
2-(1) The air is heated by the effect of Sun's radiation.
3-(2) The hot air rises up.

(10) Look at the following figure, then complete the following sentences using the words between brackets:



(more – solar radiation – loses – less)

1-Air in area (A) moves upward, because it has less density.
2-Air in area (A) becomes hot by the effect of solar radiation .
3-Air in area (B) moves downward, because it has more density.
4-When air in area (A) moves to area (B), it loses thermal energy, so it will fall down near the Earth's surface.

(11) Explain the importance of Convection ?
1) help in determining The Regional Climate
2) Convection Current affect the movement of water Through water cycle

(12) Explain The role of gravity in water cycle in nature?
1) falling of melting ice crystals And water droplets found in clouds back To Earth's surface

2) Flowing of liquid water from higher elevation areas to lower elevation area This lead of leakage of liquid water down into ground water reservoirs.

(13) How does the amount of energy emitted from the sun affect the rate of transpiration in plant leaves?

The amount of energy from the Sun affects the rate of transpiration in leaves, where when the amount of the energy comes from the Sun increases, the transpiration in plant's leaves increases.

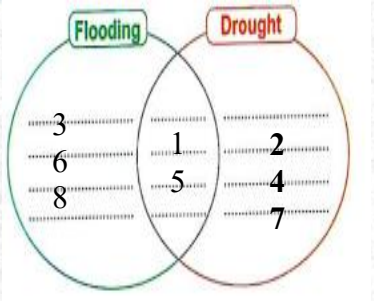
Concept 2

(14) What are the effects of drought, sandstorms and floods?

Harms of drought:
• There is not enough water for people, plants and animals. • Floods occur due to: The increase in the rate of the rainfall that happens every two years causes the River water to flow over the edges of the riverbank and onto the land around the River. The sudden melting of snow and ice over a region.
Harms of floods:
- Damaging of buildings by moving or breaking them. - Death of people and animals. - Harming of economy. Harms of sandstorms:
Dust reduces the visibility during driving cars. - Dust accumulates on solar panels, so they stop generating energy. -Dust fills up irrigation canals, so the water quality decreases. Dust damages planes engines. Dust harms the human eyes and respiratory system.

(15) Write the number of each of the following sentences in Venn's diagram below:

1. Affect human, plants and animals.
2. Occur due to little rain for a long period of time.
3. Dangerous if the ground is frozen.
4. Occur due to extreme hot and dry weather.
5. Extreme weather condition.
6. Occur due to sudden melting of snow.



7. No water available for drinking, growing crops.
8. Occur due to much rain for a long period of time.
9. Harmful for buildings.

(16) Study the following photos that show some weather conditions, then Put (✓) or (✗):

		
Photo (1)	**Photo (2)**	**Photo (3)**

1. In photos (1), (2) and (3), the environments show normal weather conditions. (✗)
2. In photos (1) and (3), there is no water found in the rain guage if it is used in these conditions. (✓)
3. In photo (3), the temperature is very low during daytime. (✗)
4. In photo (2), weather radar is very important to be used. (✓)
5. In photo (1), anemometer measures a very high speed of wind. (✓)

(17) Explain The role of sun in wind Movement

Wind is generated when The Warm arises upward by The effect of sun radiation and it replaced by Cooler air That flow.

(18) Mention The stage of Predicting Weather

1)Collecting Data
2)Analezying Data
3)Putting it all Together

(19) Mention the importance of Concept Weather Map?

Collect data from different Places And over short Periods of Time

(20) Mention The importance of Weather ballons?

⇒ Carry measuring instruments high inTo atmosphere To measure Conditions of weather.

(21) What's the use of Importance or uses

1. Thermometer: **It measures the temperature.**

2. Barometer: It measures the atmospheric pressure.
3. Anemometer: It measures the wind speed.
4. Weather radar : It detects the intensity and speed of precipitation and tracks thunderstorms and hurricanes.
5. Rain gauge: It measures the amount of rain in a certain area.

(22) Study the following two pictures, then answer the following questions: (A) Put (o) or (X):



1. Animals in both pictures need food, water and habitat to survive. (✓)
2. The animal in picture (B) has a body color helps it to survive in its desert environment. (✓)
3. Animals in both pictures have a body size similar to its parents. (✓)

(B) If you know that the bird in picture (A) is a migratory bird, write 2 reasons for its migration:

a. Search for different food resources b. Search for another suitable habitats

(23) Classify the following examples of adaptation in animals into structural and behavioral adaptations:

strong sense of smell	move in groups	walk on two legs	have sharp teeth	migration every year

(A) Structural adaptation: Strong sense of smell – Walk on two legs - Have sharp teeth.

(B) Behavioral adaptation: Move in groups – Migration every year

(24) Study the following pictures, then put (✓) or (✗):



1. The four pictures show some biotic factors that live in three different environments. (✓)
2. The animal in picture number (2) lives in an environment that suffers from shortage of water, while the environment in which the animal in picture number (3) lives has a lot of water. (✗)

3. Animals in pictures number (2) and (4) can't live in the same environment, while living organisms in pictures number (1) and (3) can live in the same environment. (✓)

4. Caribou can live in the same environment in which the animal in picture number (4) lives. (✓)

(25) Look at the picture then answer:



Steppe eagle

1- Seasonal migration is a behavioral adaptation.

2- Steppe eagles migrate with the aim of search for food and breeding

3- The steppe eagle has a sharp and strong beak, and this is a structural adaptation adaptations .

4- The steppe eagle has structural adaptations such as long wings that help it fly long distances.

(26) How do genetic factors affect the growth of living organisms?

Its body color that helps it hide in the desert.

It doesn't drink water for several months.

(27) Read the following statements then correct the incorrect ones:

1- Fur color is considered a structural adaptation. (Correct)

2- The size of an organism's natural habitat does not affect its growth. (Incorrect)

Correction: The size of an organism's natural habitat affects its growth

3- The size of an organism is a characteristic that is not affected by genetic factors. (Incorrect) Correction: The size of an organism is a characteristic that is affected by genetic factors.

4- An unhealthy environment positively affects human life.

(in Correct) An unhealthy environment negatively affects human life

5- Height and skin color are considered abiotic factors that affect human life.

(in Correct) Water and temperature are considered abiotic factors that affect human life.

6- Hums increases soil fertility. (correct)

7-Water is one of the basic ingredients of soil. (correct)

8- The soil consists of a mixture of organic matter only. (in correct)

Correction: the soil consists of a mixture of organic and inorganic matter.

9- The large sized particles in the soil make it more water-retaining. (in correct)

Correction: the large sized particles in the soil make it less water retaining.

10- One of the characteristics of sandy soils is its large sized particles and low water retention. (correct)

11-Climate does not affect soil properties. (incorrect)

correction: climate affect soil properties

12-Removing vegetation keeps the soil from erosion.

(incorrect) correction: Removing vegetation increase the soil erosion

13-The entry of invasive organisms into the natural habitat has a positive effect.

(incorrect)correction: the entry of invasive organisms has negative effect

14- A natural habitat is a place where living organisms live and their needs are met.(correct)

(28) Identify the type of factor (genetic-environmental- lifestyle):

1- Smoking practice Lifestyle .

2- Availability of hospitals Environmental .

3-Length of hand fingers Genetic .

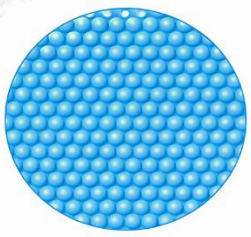
(29) Look at the following figure then complete the following sentences using the words below:

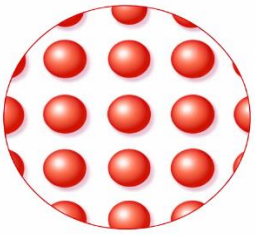
(worms-water-minerals - soil-bacteria- remains of dead plants)

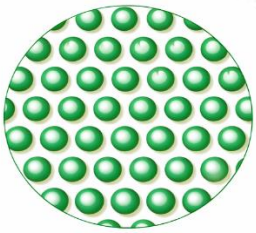


1. This layer that covers Earth's crust is called soil .
2. This layer contains organic ingredients like worms and bacteria inorganic ingredients like water and minerals .
3. Decomposers break down the remains of dead plants that are found in this layer that increase its fertility.

(30) Look at the following figures that represent particles of different types of soil, then answer the following questions:


Figure (1)


Figure (2)


Figure (3)

(A) Choose:

1. Figure (1) represents clay soil. (sand - silt - clay)
2. Figure : Figure (2) retains small amount of water. (1- 2 – 3)

Figure (3)

(B) Put (✓) or (X):

1. Figure (2) represents yellow sand soil. (✓)
2. Figure (3) is more fertile than figure (1). (✓)
3. Soil in figure (1) allows very large amount of water to flow through its particles. (X)

(31) Look at the opposite figure then choose the correct answer:

1…… is the type of soil that is found in this ecosystem.

a. Sand b. Silt c. Clay

2. The moist conditions in this ecosystem, lead to……temperature.

a. very hot b. very cool c. hot

3. The animals that live in this ecosystem are……

a. lions and cheetahs. b. frogs and mosquitos.

c. gazelles and zebras.


Bog ecosystem

(32) Classify the following activities into natural activities and human activities that lead to habitat destruction:

Hurricanes	*Floods*	*Building houses*	*Destructive earthquakes*	*Making road and airport runways*

Natural activities	Human activities
- Hurricanes.	- Building houses.
- Floods.	- Making road and airport runways
- Destructive earthquakes.	

(33) Look at the opposite picture, then complete the following sentences using the words below:

overgrazing *desertification* *straw* *deserts* *animals* *infertile* *stems* *deforestation* *manure*

1. The opposite picture shows the occurrence of desertification process, that happens when the soil becomes infertile and turns into deserts .



2. Among the reasons for occurrence of this process are deforestation , drought or overgrazing .
3. To restore this soil, farmers should use crop remains such as straw and stems or use natural fertilizers such as animals manure.

(34) Look at the opposite photo then answer:



(A) Put (✓) or (X):

1. Human activities increase water pollution. (✓)
2. Air pollution can cause water pollution. (✓)
3. Using large amounts of fertilizers reduce water pollution. (X)

(B) Complete:

1. To reduce water pollution we have to treat sewage and industrial water before throwing them into any water body.
2. Using soil fences and sedimentation ponds decrease water pollution.

(35) Look at the following picture, then complete the following sentences using the words below:

pollution	*chemical*	*traditional bricks*	*subsoil*	*glue-like substance*

1. This building material is called traditional bricks .
2. The process of making this building material can cause pollution that damage the environment.
3. Scientists tend to use glue- like substance instead of this building material, which is made by chemical change of subsoil that beneath the topsoil.



(36) The stages of soil formation start with:

Weathering → Erosion → Deposition

Notice the following picture then answer

a- Organic ingredients in soil such as insects and worms (True - False)

b- Soil contains particles rocks of sand and clay

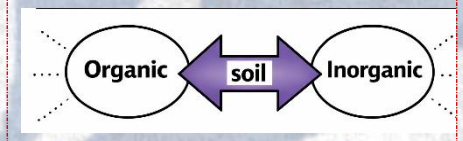
c- Environmental cleaner that decomposes dead organisms called decomposers.

Complete: Soil ingredients:

- Small pieces of rocks. - Small pieces of leaves and branches of trees. - Other dark colored materials.	

Complete the following chart:

- Remains of dead plants and animals
- Decomposer/organism (fungi - bacteria - earth worm)



- Rocks and minerals
- Water
- Air

(37) Soil is considered one of the ingredients of the lithosphere of the Earth planet.

*Identify the importance of soil for both humans, animals, and plants:

The importance of soil

For human	For plants	For animals
• Building houses.	•Provide nutrients and water for growth of the plant.	Provide shelter to some animals.
• Provide food and crops to survive.	•Anchor the roots of plant.	Source of food to survive.

(38) Choose the odd word :

1- Sand - humus - clay - silt.

2- Wide eye - plant height - swimming skill - skin color.

3- Air - water - decomposing organisms - rocks.

4- Sunlight - Precipitation - Temperature - Insects.

(39) What is meant by soil? Mention its components and what is the importance of soil for plants?

It is the loose layer which covers Earth's crust.

Components of soil:

-Organic material (dead plants).

-Sand, gravel and minerals.

-Living organisms (worms and insects).

-Water. -Air.

* Soil important for plants as it provide them with its basic needs for growth (air - water - nutrients).

(40) Compare between sandy soils and clay soils in terms of particles size and cohesion:

Type of soil	Size of particles	Cohesion
Sandy soil	Large	Non-cohesive (loose)
Clay soil	Small	Cohesive