This is a Class 1 exam

Lebanon Evangelical School for Boys and Girls

Lebanon Evangelical School

for Boys and Girls — Loueizeh - Baabda

Stage Exam 05

07MAY2024

Do NOT write in this box. Your MARK will be placed here.

Subject :	Science
Class :	6A, 6B, 6C and 6E
Teacher :	Mrs. Aya Al-Mawla
Duration :	1 hour

Answer on a SEPARATE Sheet

Your name :		*Time taken to complete exam*
Your Class :		
Exam Room :		
How many sheets, including cover sheet :		

- Do not open this paper until the teacher in charge instructs you to do so.
- The most important thing to remember in taking an exam is NEVER PANIC.
- If you are caught cheating in this exam, you will be awarded zero for ALL exams that are taken on this day.

Write your answers on a **SEPARATE GRID-SHEET**
The Exam consists of **4 pages** including **9 exercises**

I. ***Choose*** *the correct answer for each of the following questions.* *(10points)*

1- What structures enable the plants to exchange gases?
   - A- Rhizoids
   - B- Roots
   - C- Stomata
   - D- Seeds

2- Which of the following is not a role of the roots of a plant?
   - A- Anchoring the plant into the soil.
   - B- Carrying and supporting the fruits produced by the plant.
   - C- Storing water or food.
   - D- Absorbing water and minerals from the soil.

3- What are the necessities for the growth of a plant?
   - A- Pollination and vegetation
   - B- Bees and insects
   - C- Water, air and sunlight
   - D- Spores

4- The tree trunk is considered to be a …
   - A- Woody stem
   - B- Herbaceous stem
   - C- Fibrous stem
   - D- Prop stem

5- Which of the following plants have rhizoids?
   - A- Ferns
   - B- Conifers
   - C- Cedars
   - D- Liverworts

6- Which of the following is a characteristic of vascular plants?
   - A- Reproduce through spores
   - B- Have specialized transporting tissues
   - C- Produce seeds
   - D- Have root-like structures

7- Which of the following is a characteristic of nonvascular plants?
   - A- Have actual roots into the soil
   - B- Carry different types of fruits and flowers
   - C- Produce seeds that can be planted to develop into an adult plant
   - D- Get water from the surfaces in their surrounding environment

8- All of the following are vascular plants except …
   - A- Clubmoss
   - B- Hornworts
   - C- Horsetails
   - D- Conifers

9- Which of the following plants are seedless?
   A- Palm Trees
   B- Ferns
   C- Pine Trees
   D- Sunflowers

10- Which part of the plant can carry the seeds of a plant?
   A- Roots
   B- Stem
   C- Leaves
   D- Flower

II. ***Complete** the following paragraph with the appropriate scientific terms.* *(10points)*

Animals share several characteristics. All animals are multicellular, having _(1)_ cells held together by _(2)_. Animals can't get energy from sunlight, they rely on other organisms to get energy so they are called _(3)_. All animals respond to their environment using their specialized cells such as _(4)_ or _(5)_ cells.

On the other hand, Plants also share several characteristics. All plants are made of many eukaryotic cells, which means plants are _(6)_ organisms. They are _(7)_, meaning they produce their own organic matter by converting sunlight into usable energy.

Both the plant cell and the animal cell have many things in common. But the plant cell has a _(8)_ as a rigid outer structure, a _(9)_ for storage of molecules, and _(10)_ for photosynthesis.

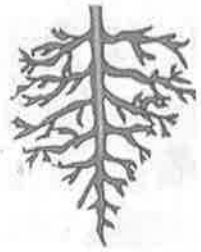
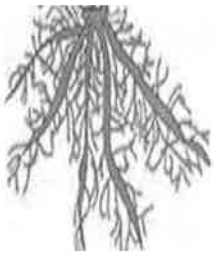
III. ***Tell** whether the following statements is **true** or **false**, then correct the false statements.* *(10points)*
(In the case where the statement is false, change the underlined word)

1- Plants are living things that can reproduce sexually or asexually.
2- Stomata are responsible for transporting water and minerals from the roots to the leaves.
3- Budding is a process by which a part of a plant is cut and planted to grow and develop into a new plant.
4- Pollination occurs when pollen grains are transferred from the male part to the female part of a flower.
5- Animals with bilateral symmetry can be divided into identical parts along any central axis.
6- Animals with radial symmetry have body plans that don't have their front different from their back.
7- Heterotrophs usually rely on autotrophs or other heterotrophs to obtain food.
8- All Animals have an endoskeleton.
9- Most aquatic animals reproduce in the water through internal fertilization.
10- Sponges are aquatic animals classified among prokaryotes.

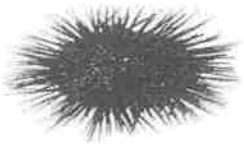
IV. ***Classify*** *each of the following adaptation features to the corresponding category.* *(10points)*
*(Write **S** for structural adaptations, **B** for behavioral adaptations, and **F** for functional adaptations)*

1- Migration of birds to find more favorable climates.
2- Fish having a respiratory system relying on gills to extract oxygen from the water.
3- Lions marking their territory area.
4- Humming birds having a long thin beak to sip flowers' nectar.
5- Polar bears having thick fur that help them retain heat in freezing weather conditions.
6- Bears hibernating during winter.
7- Carnivores having a specialized digestive system to digest meat.
8- Frogs laying eggs in water to be fertilized externally.
9- Snakes' ability to detect body heat of other organisms.
10- Bees constructing honeycombs to raise their young.

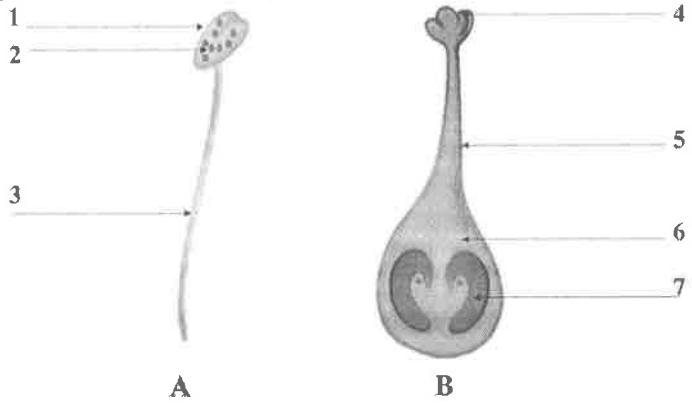
V. ***Name*** *the type of roots shown in the figures below.* *(4 points)*

1- 
2- 
3- 
4- 

VI. ***Determine*** *the type of symmetry for each of the following animals.* *(8 points)*

1- Corals 
2- Bee 
3- Sponge 
4- Fiddler Crab 
5- Star fish 
6- Sea Urchin 
7- Elephant 
8- Octopus 

VII. ***Use** the given diagrams to answer the questions that follow.* *(9 points)*



1- Name the structures **A** and **B**.
2- Label the parts (**1 till 7**).

VIII. ***Give** the corresponding term for each of the following statements.* *(12points)*

1- The male reproductive cells.
2- The process through which parts of two plants are joined together to grow a new plant.
3- Tiny structures that mostly grow on the leaves of seedless plants and are considered to be agents of reproduction.
4- A yellowish powdery substance of a plant that contains male reproductive cells.
5- Green and soft non woody stems.
6- The part of the plant that anchors it into the ground.
7- Specialized tissues that transport water, minerals and nutrients throughout the plant.
8- Traits that increase an animal's chances to survive and reproduce.
9- A cell that has a nucleus.
10- The type of reproduction where reproductive cells join.
11- The body plan of animals that cannot be divided into mirror-images.
12- A thick hard outer covering for certain animals.

IX. ***Answer** the following questions.* *(10points)*

1- Indicate the *Domain* to which animals and plants belong.
2- Describe the skeletons of a worm, a snail and a lizard.
3- Compare and Contrast *Gymnosperms* and *Angiosperms*.
4- *A Bee-orchid* is classified to belong to the kingdom *Plantae* although it looks like a female bee. Male bees fly towards it to try to mate with it, but end up pollinating the bee-orchid causing it to reproduce, and feeding on the sugar-nectar produced by its flower. Using the above text, specify *two* characteristics that bee-orchids have so that they are classified as plants.



5- "External fertilization occurs among animals that lay eggs, whereas internal fertilization only occurs among animals that give birth."
Explain using your own words, whether you *agree or disagree* with the statement above.

SE05 / GABCE / Science / Answer key (/83)

I_ 1_ C
2_ B
3_ C
4_ A
5_ D
6_ B
7_ D
8_ B
9_ B
10_ D

10 points:
1 point each

II_ 1_ eukaryotic
2_ Collagen
3_ Heterotrophs
4_ nerve or muscle
5_ nerve or muscle
6_ multicellular
7_ autotrophs
8_ cell wall
9_ Central vacuole
10_ Chloroplast

10 points:
1 point each

III_ 1_ True (1)
2_ False. Stems (0.5)
3_ False. Cutting
4_ True
5_ False. Radial
6_ True
7_ True
8_ False. Skeleton
9_ False. External
10_ False. eukaryotes

10 points:
1 point each

IV_ 1_ B
2_ F
3_ B
4_ S
5_ S
6_ B
7_ F
8_ F
9_ S
10_ B

10 points:
1 point each

V_ 1_ Taproot
2_ Fibrous root
3_ Tap root
4_ Proproot

4 points:
1 point each

VI_ 1_ Radial
2_ Bilateral
3_ Asymmetry
4_ Asymmetry
5_ Radial
6_ Radial
7_ Bilateral
8_ Bilateral

8 points: 1 point each

VII_ 1_ A: Stamen
B: Pistil

2_
1. Anther
2. Pollen
3. Filament
4. Stigma
5. Style
6. Ovary
7. egg

9 points: 1 point each

VIII _ 1_ Sperm cell
2_ Grafting
3_ Spores
4_ Pollen
5_ Herbaceous Stems
6_ Roots
7_ Vascular tissues
8_ Adaptations
9_ Eukaryotic Cells
10_ Sexual
11_ Asymmetry
12_ Exoskeleton

(12 points : 1 point each)

IX _ 1_ Eutrarya (1 point)

2_ • A worm has a hydrostatic skeleton, which is a fluid-filled internal cavity surrounded by tissues.

• A snail has an exoskeleton, which is a thick hard outer covering for protection.

• A lizard has an endoskeleton, which is an internal rigid framework of bones.

(3 points: 1 point each)

3_ Both are vascular seed-producing plants. Angiosperms are flowering plants, whereas gymnosperms are nonflowering plants.

(2 points: 1 for difference & 1 point for similarity)

4_ • Reproducing through pollination
• Being an autotroph

(2 points: 1 for each)

5_ I disagree, (0.5)

There are animals (1.5) that reproduce through laying eggs that are fertilized internally such as hens. Internal fertilization is when the male reproductive cells and female reproductive cell join inside the female body, but it is not related to whether the animal develops in an egg or in the female's body.

Or any other clear explanation.

(2 points)