This is a Class 1 exam

Lebanon Evangelical School for Boys and Girls

Lebanon Evangelical School

for Boys and Girls — Loueizeh - Baabda

Stage Exam 01

06NOV2023

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.

I- **Choose** the correct answer. *(10 points)*

1- The imaginary line joining the North pole to the South pole around which Earth rotates is the:

A- Equator
B- Earth's axis
C- Prime Meridian
D- Tropic of Cancer

2- The orbiting of Earth around the Sun is known to be:

A- Satellite
B- Supernova
C- Rotation
D- Revolution

3- The main reason for changes of seasons on Earth is:

A- The tilt of Earth's axis as it orbits
B- The rotation speed of Earth
C- Earth's distance from the Sun
D- The Brightness of sunlight

4- What is true about a solar eclipse?

A- The moon appears to be red
B- Volcanic eruptions take place
C- The moon blocks sunlight from Earth
D- The sun will turn its light off

5- Which of the following is true about inner and outer planets?

A- Inner planets rotate faster
B- Inner planets revolve faster
C- Inner planets revolve slower
D- All of the above

6- The far side of the moon is the result of the moon's:

A- Distance away from Earth
B- Surface full of craters
C- North and south pole
D- Orbit and rotation at the same rate

7- Meteors that pass through Earth's atmosphere and hit the Earth are called:

A- Meteoroids
B- Meteorites
C- Meteoroland
D- None of the above

8- The moon has several effects on Earth, such as:

A- Eclipses, Day and Night, Seasons
B- Eclipses, Seasons, Tidal changes
C- Eclipses, Tidal changes, Moon phases
D- Moon phases, Day and Night, Tidal changes

9- Sirius A is a star 8.6 light years away from Earth. Which of the following statements is true about Sirius A?

A- The light we see from Sirius A today has left space 8.6 years ago
B- The life span of Sirius A is 8.6 years
C- Sirius A will be seen from Earth for 8.6 years only
D- None of the above.

10- ` Use the adjacent figure to determine the season in the northern hemisphere.

A- Summer
B- Autumn
C- Winter
D- Spring

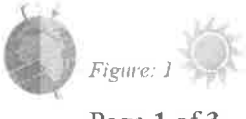


Figure: 1

II- **Tell** whether each of the following statements is ***true*** or ***false***, then **correct the false statements.** *(6 points)*

1- The asteroid belt is located between Venus and Jupiter.
2- A light year is the measure of time needed for light to travel in space.
3- The Milky-way galaxy is a spiral galaxy.
4- During the waxing phases of the moon, the lit-part becomes less visible.
5- The Sun is the only star in our Solar System.
6- The moon has a bigger effect on tidal changes than the Sun.

III- **Indicate** the term that is described in each of the following sentences. *(11 points)*

1- A collection of stars and space dust.
2- The motion of Earth that causes us to experience day and night.
3- A natural satellite that doesn't orbit a star.
4- Large spheres of hydrogen gas making up galaxies.
5- A spherical object that orbits the Sun but shares its orbital path with other objects.
6- Meteors before entering Earth's atmosphere.
7- Icy rocky bodies that orbit the Sun.
8- An inner planet having two moons.
9- The planet that has 70% of its surface covered with water.
10- The color of the hottest stars.
11- The distance from Earth to the Sun.

IV- **Arrange** the steps of formation of the Solar System in order. *(3 points)*
(Do not copy the sentences, use the numbers to order.)

1- The cloud became hotter and began to spin.
2- The cloud flattened into a disk
3- Planets and other objects formed from the leftover space dust and gas.
4- The gravitational pull formed a cloud of space gas and dust.
5- A star formed in the core of the cloud.
6- Planets settled in their orbital paths around the Sun.

V- **Indicate** the type of tides and the effect that will be experienced due to the positions of the Sun, Earth and Moon in the figure below. *(2 points)*

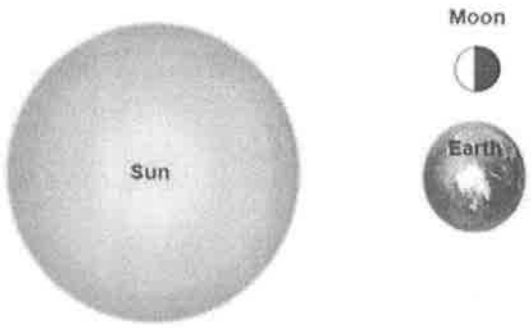


Figure 2

1- Type of Tides:
2- Effect:

VI- **Complete** the following table with details about solstice and equinox. *(4 points)*
(Do NOT redraw the table)

	Solstice	Equinox
Duration	1	2
Start of seasons	3	4
Direction of Earth's axis	5	6

Table 1

VII- **Answer** the following questions about moon phases. *(6 points)*

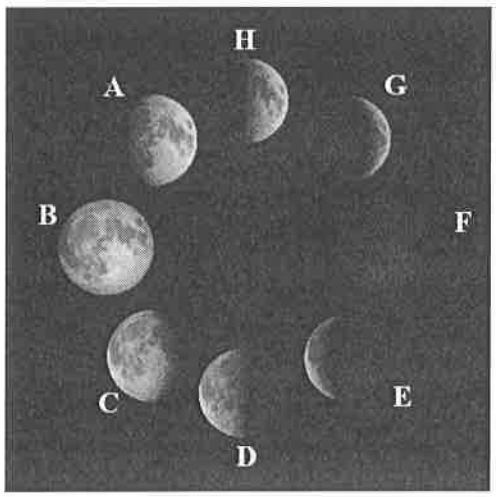


Figure 3

1- Why do we see different phases of the moon
2- Label the moon phases (**A, B, D, &E**) shown in the diagram above.
3- How many days does it take the moon to change from phase **F** to phase **B**?

VIII- **Answer** the following questions *(8 points)*
1- *Indicate* the time taken for Earth to complete one revolution.
2- *Indicate* the time taken for Earth to complete one rotation.
3- *Compare and contrast* planets and dwarf planets.
4- *Indicate* the type of galaxies that mostly includes red stars.
5- During *which moon phase* will the far side of the moon be also dark?
6- What will the effect of a *lunar eclipse* be on *tides*? Explain.

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I- 1- B
2- D
3- A
4- C
5- B
6- D
7- B
8- C
9- A
10- C
(10 points - 1pt. each)

II- 1- False: The asteroid belt is located between Mars and Jupiter. (0.5) (0.5)

2- False: A light year is the distance that light can travel in one year. (0.5) (0.5)

3- True (1)

4- False: During the waxing phase, the lit part of the moon becomes more visible. (0.5) (0.5)

5- True (1)

6- True (1)

(6 points - 1 pt. each)

III- 1- Galaxy
2- Rotation
3- Moon
4- Stars
5- Dwarf planets.
6- Meteoroids
7- Comets
8- Mars
9- Earth
10- Blue
11- Astronomical Unit

(11 points - 1 pt. each)

IV- 4 - 1 - 5 - 2 - 3 - 6

(3 points - 0.5 pt. each)

V- 1- Type of tides: Neap Tides (1)

2- Effect: High tides become lower than the usual, (0.5)
low tides become higher than the usual. (0.5)

(2 points)

VI- 1- one day (0.5)
2- one day (0.5)
3- Summer/Winter (0.5) (0.5)
4- Spring/Fall (0.5) (0.5)
5- Towards or away from the Sun (0.5)
6- parallel to the Sun (0.5)

(4 points)

VII - 1- We see different phases of the moon because different parts of the moon's lit surface are visible from Earth as the moon orbits Earth. (1 point)

2- A- Waxing Gibbous
B- Full Moon
D- Last Quarter / Third Quarter
E- Waning Crescent
(4 points: 1 each)

3- 2 weeks (14 days) (1 point)

VIII - 1- 365.25 days (1 point)
2- 24 hours (1 day) (1 point)

3- Both planets and dwarf planets are spherical objects that orbit the Sun.

Planets are larger than dwarf planets, and unlike dwarf planets, planets do not share their orbital paths. (2 points: 1 point for similarities & 1 point for differences)

4- Elliptical Galaxies (1 point)
5- Full Moon Phase. (1 point)

6- During a lunar eclipse, the moon is in its full (0.5) moon phase, and the Sun, Earth (0.5) and Moon are aligned. Therefore Spring (0.5) tides will be experienced. (So high tides would become higher than the usual, and low tides would become lower than the usual) (0.5) (2 points)