Introspection on the Behavior of Light Energy Rays

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Abstract: *This article explores the particle motion of light, emphasizing that light is composed of high-velocity, energetic particles rather than waves. It posits that mass is integral to energy manifestation and that light's behavior contradicts traditional wave theory, as particles travel in straight lines without medium dependency. Through analysis of phenomena such as solar refraction and particle reflection, the study disputes Einstein's General Relativity theory of spacetime curvature, proposing that refraction, not gravity-induced curvature, explains light bending near massive objects. It also challenges the notion of a constant universal light speed and suggests time is planet-specific, varying with planetary rotation rather than gravitational forces.*

Keywords: light particles, refraction, mass and energy, spacetime curvature, planetary time

Part A

Particle Motion of Light

1) We know that light is a form of energy, and energy is the capacity of a body to do work. Without mass, the concept of energy becomes meaningless. Energy cannot exist in a free state; without mass, various forms of energy - such as mechanical energy, potential energy, kinetic energy, heat energy, light energy, and atomic energy - would be meaningless. Therefore, mass plays a crucial role in the manifestation of energy. When light energy rays are more accurately focused, the intensity of heat increases. Thus, a light ray can be considered a tiny, energetic mass with enormous velocity. However, the current belief that light consists of waves rather than particles is an external assumption, as waves are fundamentally different from vibrations or particle movements. From this, we can infer that those light rays are a form of kinetic energy, though not separate from it. The velocity of light energy is extremely high because it consists of tiny, energetic particles. We cannot achieve this velocity because our mass is significantly larger than the tiny energetic particles of light rays. No energetic particle can spread in the form of a wave.

2)
(a) Due to the high temperature of approximately 6000 degrees Celsius, there is no possibility of molecules or atoms existing on the Sun. Neutrons and protons on the Sun are packed tightly, sliding over one another and generating intense heat. As a result, tiny energetic particles of varying sizes are liberated due to the high pressure in the Sun's core. These tiny energetic particles that emanate from the Sun are what we refer to as light rays. The Sun is a solid mass, and light is a form of energy. It is impossible to create atoms or molecules from these tiny energetic particles. No one can solidify light energy into a mass. Therefore, mass and energy are distinct entities; they are not interchangeable, though they do interact. The idea that energy can be converted into mass is an illusion.

(b) The tiny particles acquire energy as they are released from the Sun, becoming energetic and continuously extruding in concentric spherical forms at enormous velocity. A stream of accumulated tiny energetic particles is what we call light. Light is not a solid mass. Unlike light, all massive particles in the universe are solid. Therefore, comparing the velocity of light's tiny energetic particles to that of solid mass is meaningless.

3) The quantity of matter a substance contains is its mass, it is a fundamental unit for the study of Physics and the mass of the body at any place or in any planet or immersed in liquid or in the space remains constant. Except mass, Time Energy Weight or Force and velocity of light energy are variable units in the universe. Therefore, mass is the universal constant.

All planets, asteroids, comets, meteoroids, and other solid objects that are submerged in and pass through the concentric spherical space medium of the solar system have mass but no weight. Our Earth also has no weight. If we placed Earth on the planet Jupiter, Earth would lose its gravity. The weight of Earth on Jupiter would be greater than its weight on any other planet.

W_O = Weight of the object; W^P = Weight on the planet
WE^J = Weight of the earth on the planet Jupiter
WE^s = Weight of the earth on the planet Saturn
WE^N = Weight of the earth on the planet Neptune
WE^U = Weight of the earth on the planet Uranus
WE^v = Weight of the earth on the planet Venus
WE^M = Weight of the earth on the planet Mars
WE^{Mo} = Weight of the earth on the planet Moon
$WE^J > WE^s > WE^N > WE^U > WE^v > WE^M > WE^{Mo}$

So, weight is not universal constant.

4) A convex lens converges the Sun's light energy to a focus, where concentrated, tiny energetic particles continuously collide with one another, sharing their energy and causing the spot to scintillate. Heat is generated and rekindled at that point, and this fire serves as evidence that light energy is the result of particle movement, not wave motion.

5) a) Naturally, the spreading of waves in any medium always exhibits a diverging characteristic, not a beam or converging characteristic. Waves in a lighter medium cannot spread into a denser medium, even when the two mediums are in contact. No wave form can penetrate a plain glass, glass prism, or the palm of a hand. These are also characteristics of wave motion.

The diverging characteristic of a wave in turmoil, combined with the diverging characteristic of particle motion of light energy rays, exhibits a specific force with enormous velocity. Except for these, there is no other wave form in the universe - Axiom

5) b) When looking at the still water of a pond, we can see the distinct shadows of flying birds over the pond, as well as the reflections of trees and moving vehicles on the bank of the pond. Throwing a pebble into the still water disturbs the surface, creating waves. These waves turn the distinct reflections of objects into blurred, wavy reflections. So instead of clear reflections, we see wavy shadows of the objects.

If light traveled purely as a wave, we would see blurred images instead of distinct objects in the universe. However, we observe distinct objects, such as the full moon and crescent shapes, suggesting that light does not solely behave like a wave. The idea that light sometimes behaves as a wave and at other times as a particle is indeed complex, and it is an essential part of quantum mechanics.

6) A burette is filled with mercury and suspended above still water in a pond, about three feet high. A drop of mercury is allowed to fall onto the surface of the still water by turning a stopcock. This drop disturbs the water's surface, creating waves, while the mercury drop itself penetrates the water and reaches the bottom of the pond. No mercury or tiny particles of mercury travel in the direction of the spreading waves. Thus, the movement of particles (in this case, mercury) is entirely different from the spreading of waves in that medium. These waves continue spreading for more than a minute before subsiding, which is also characteristic of wave behavior.

The spreading of any wave form is inherently divergent, not convergent or beam-like in nature. A wave does not disappear immediately even after the source producing it has stopped - this is an axiom.

7) a) When current flows through a conductor, a magnetic force is produced around it, forming what is called a magnetic field. This magnetic field depends on the current flowing through the coil. When the current is switched off, the magnetic field around the coil disappears immediately. In contrast, the waves created by a drop of mercury falling into water do not disappear immediately; they continue spreading for more than a minute even after the mercury stops falling. The disturbance of a medium by a particle causes waves in a stationary medium, indicating that the magnetic field is not a wave form.

b) When a conductor moves across magnetic lines of force, induction occurs because tiny particles of magnetic force interact and expel electrons from their positions within the conductor. The expelled electrons then flow in a straight line, creating an electric current. However, if the magnetic wave is askew or in a state of turmoil, it will not expel electrons from their positions. Therefore, magnetic force is not in the form of a wave.

8) The spreading of waves in any medium depends on the density and viscosity of the medium, not on the source of the waves. This is contrary to corpuscular motion. A wave is a disturbance in the medium; for example, a cork floating on a wave will not move from its place but will move up and down depending on the medium's density and viscosity. Therefore, wave motion is not directional but spreads in all directions within the medium. Wave motion requires a medium to function, and unlike the motion of light particles, it does not have velocity. The energetic particle motion of light rays is not a disturbance, so it does not require a medium and can move from one place to another with a specific velocity. Wave motion and particle motion are distinct phenomena. Before considering light rays as having a wave nature, one must remember the diverging characteristic of the energetic particle motion of light. The idea that the tiny energetic particles from the Sun exhibit dual nature or sometimes behave as waves is misleading. Misunderstanding the nature of waves can lead to incorrect conclusions about the dual nature of light.

9) Imagine a burette filled with mercury, suspended three feet above a smooth, flat surface. When a drop of mercury is allowed to fall by turning the stopcock, the drop strikes the smooth surface and spreads out 360 degrees, with tiny energetic particles of various sizes flowing away from the source at high velocity. If another drop of mercury falls, the same type of particle movement occurs. This action continues until the source is stopped. Each portion of the tiny, high-velocity mercury particles is called a pocket of corpuscles. Similarly, the Sun's light energy is emitted at high velocity in the form of tiny particles, requiring no medium to travel at enormous speeds.

10) When sunlight is reflected onto a wall by a small square mirror, the area of light on the wall equals the area of the reflecting mirror. If sunlight behaved as a wave, the area of light on the wall would increase in the same shape as the mirror if the distance between the wall and the mirror were increased. This is characteristic of wave behavior, as waves spread in a diverging pattern, not a converging or beam-like one. However, as the distance between the mirror and the wall increases, the shape of the light on the wall will eventually take the shape of the Sun. At this point, particle collisions occur, producing heat.

A wave form will not produce heat and will not change the shape of the reflecting area. - Postulate

11) Take three plain mirrors - one square, one triangular, and one of an irregular shape - each with an area of 36 square inches, and fix them in a frame with a 3-inch gap between each.

12) When sunlight is reflected onto a screen by these plain mirrors of different shapes simultaneously, the area of the light rays on the screen will match the area and shape of the reflecting mirrors in the frame.

13) If we increase the distance between the screen and the reflecting mirrors, the area of the light rays on the screen will be larger than the area of the square, triangular, and irregular-shaped mirrors, respectively, if light energy consisted of waves. However, as the distance between the

mirrors and the screen increases, the shape of the light rays on the screen will eventually take the shape of the Sun, rather than the shapes of the mirrors. This indicates that light energy consists of tiny particles.

14) If this experiment is conducted during a solar eclipse, the eclipse will be visible on the screen, instead of the area and shape of the light rays corresponding to the reflecting mirrors. Mathematical equations cannot fully explain or reveal the nature of light energy. Most scientists assume that light energy behaves in duality (i.e., both particle motion and wave motion). However, this is incorrect because energy is the capacity of a particle (or body) to do work, and energy cannot exist in a free state. Therefore, the Sun's light energy travels in particle form.

The points mentioned in paragraph 1, 2, 4, 7, 9, 10, 11, 12, 13, and 14 clearly demonstrate that light is in the form of tiny energetic particles. On the other hand, paragraphs 5, 6, and 8 illustrate the nature of waves. Paragraph 3 indicates that mass is a universal constant.

PART – B
Refraction and Spacetime Curvature

Refraction of Light
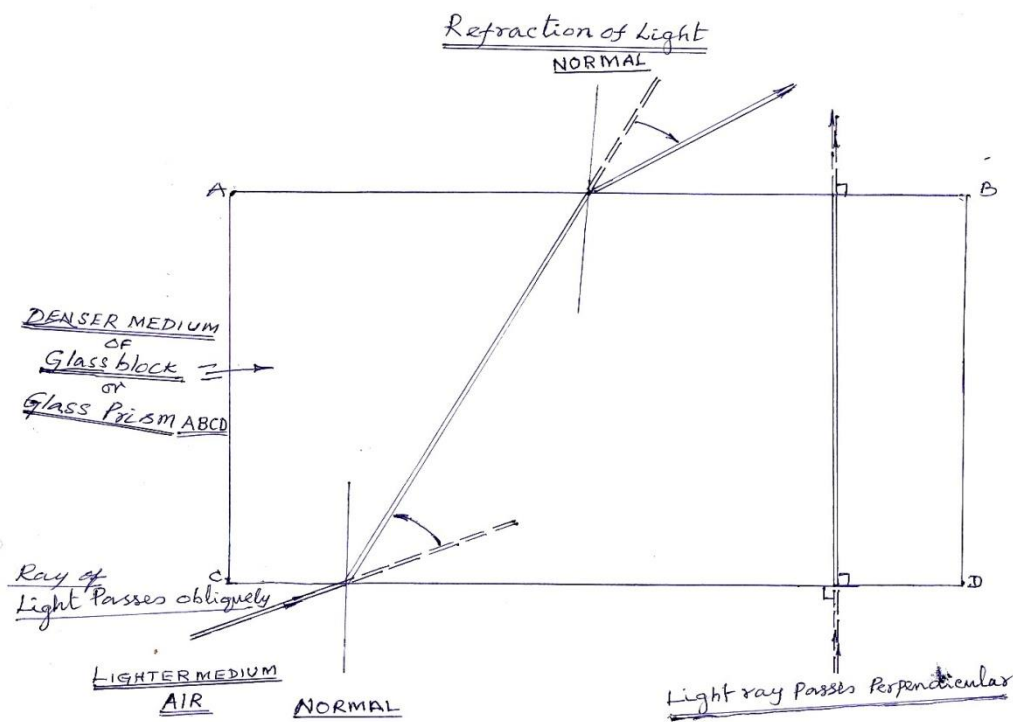
While studying the chapter on light in physics, we learn about the refraction of light rays, which is accepted as a postulate.

"WHEN A RAY OF LIGHT PASSES FROM A LIGHTER MEDIUM TO A DENSER MEDIUM, IT IS BENT TOWARDS THE NORMAL, WHICH IS A LINE DRAWN PERPENDICULAR TO THE SURFACE. CONVERSELY, WHEN LIGHT PASSES FROM A DENSER MEDIUM TO A LIGHTER MEDIUM, IT IS BENT AWAY FROM THE NORMAL."

15) The largest, boundless, volumetric medium beyond the solar system, which has no top or bottom surfaces, is called space. In space, there is no vacuum, no directions such as east, west, north, or south, and no top or bottom surfaces. These concepts apply only within the planets of the solar system. Space plays a crucial role in the functioning of celestial bodies.

16) Celestial and terrestrial bodies of mass are constantly submerged in and move through the space medium. Just as water is a medium for fish and other bodies of mass to move, the water in a pond has top and bottom surfaces. If the top surface of the water were absent, waves could not be formed. Terrestrial and celestial bodies moving through space cannot create waves because space has no top or bottom surfaces relative to these bodies. Therefore, wave motion cannot occur in the space medium. Space cannot be created or destroyed; it is fixed and absolute.

17) Space pervades the entire universe. The space medium of the universe plays a crucial role in the functioning of solid masses such as planets, asteroids, comets, meteoroids, and stars, as well as the motion of light rays. Space is neither solid nor fluid, so it has no density or viscosity and cannot be felt by touch. Space does not hold anything because it lacks gravitational, magnetic, centrifugal, and centripetal forces. Thus, space remains flat and still, with bodies moving in straight lines. Celestial and terrestrial bodies occupy the space around them in a concentric, spherical manner, similar to air bubbles in soap water. They do not bend or warp space like the concept of spacetime curvature, as they are submerged in and move through space rather than floating on its surface.

18) The Sun occupies the space medium of the universe with its light energy rays, extending outward in concentric spherical layers. The space medium around the Sun is
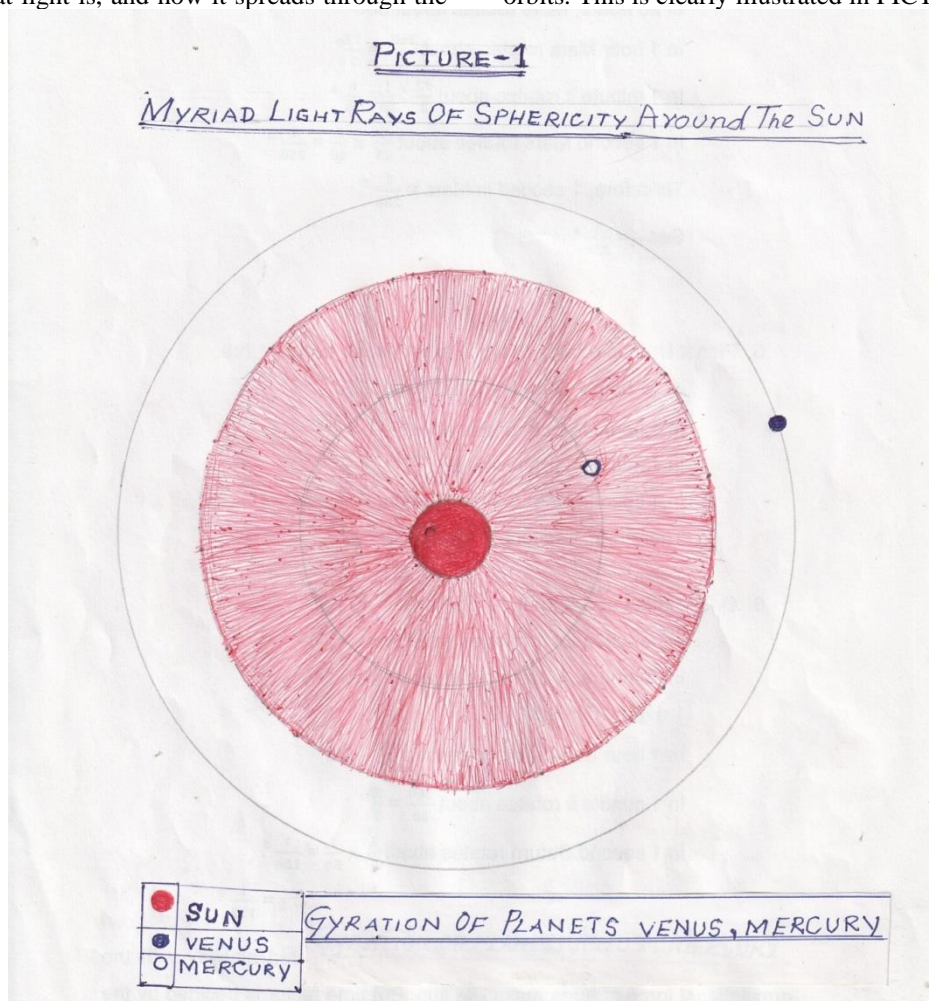
denser closer to the Sun and becomes progressively lighter further out. From a great distance, the Sun's light rays appear as a star. Within this space, the influence of the planet is referred to as the atmosphere.

19) The atmosphere has a definite concentric spherical shape determined by the planet's gravitational force as it revolves around the Sun. This revolving planet occupies the solar system's space in a concentric spherical shape. Foreign matter passing through the space occupied by the Sun's light energy rays moves in a straight line but rapidly heats up and burns upon entering the atmosphere. Therefore, the atmosphere of a planet is distinct from the space of the universe occupied by the Sun's light energy rays. The atmosphere is governed by the planet's gravitational force, causing bodies to move in curved paths.

20) Scientists should first understand how light is emitted from the Sun, what light is, and how it spreads through the space medium of the universe before attempting to understand how light bends in the vast expanse of the universe. Only then can they comprehend the bending of starlight within the solar system's myriad light rays.

21) The Sun is a large, spherical fire that emits divergent light rays through its curved surface. These divergent rays spread outward in a concentric spherical form, extending as far as possible throughout space. The light rays near the Sun form a denser medium compared to the lighter medium farther away. This denser medium near the Sun is spherical in shape. Planet Mercury revolves within this concentric spherical, denser medium of light rays around the Sun, while other planets revolve in concentric spherical, lighter media surrounding the denser region, each in their respective orbits. All planets naturally revolve around the Sun in concentric circular orbits, but due to parallax caused by their motion, the planets appear to follow elliptical orbits. This is clearly illustrated in PICTURE – 1.

PICTURE-1
MYRIAD LIGHT RAYS OF SPHERICITY Around The SUN

● SUN
● VENUS
○ MERCURY
GYRATION OF PLANETS VENUS, MERCURY

22) The Sun bakes a ploughed field of denser medium substance, with a lighter medium surrounding it. When a light ray from a star passes from the lighter medium into the denser medium, this process is also depicted in the picture. The axiom states:

"A LINE DRAWN THROUGH A POINT ON THE CURVED SURFACE OF A SPHERE TO ITS CENTER IS KNOWN AS PERPENDICULAR TO THE CURVED SURFACE AT THAT POINT."

23) When a light ray from a star passes obliquely from a lighter medium to a denser medium of sphericity around the Sun, it bends towards the normal. This bending is known as the refraction of light, not the curvature of spacetime.

When myriad forces act simultaneously in all directions on a point in space, they create concentric spheres at various micro intervals. In this way, light energy rays from the sun spread throughout the universe - POSTULATE
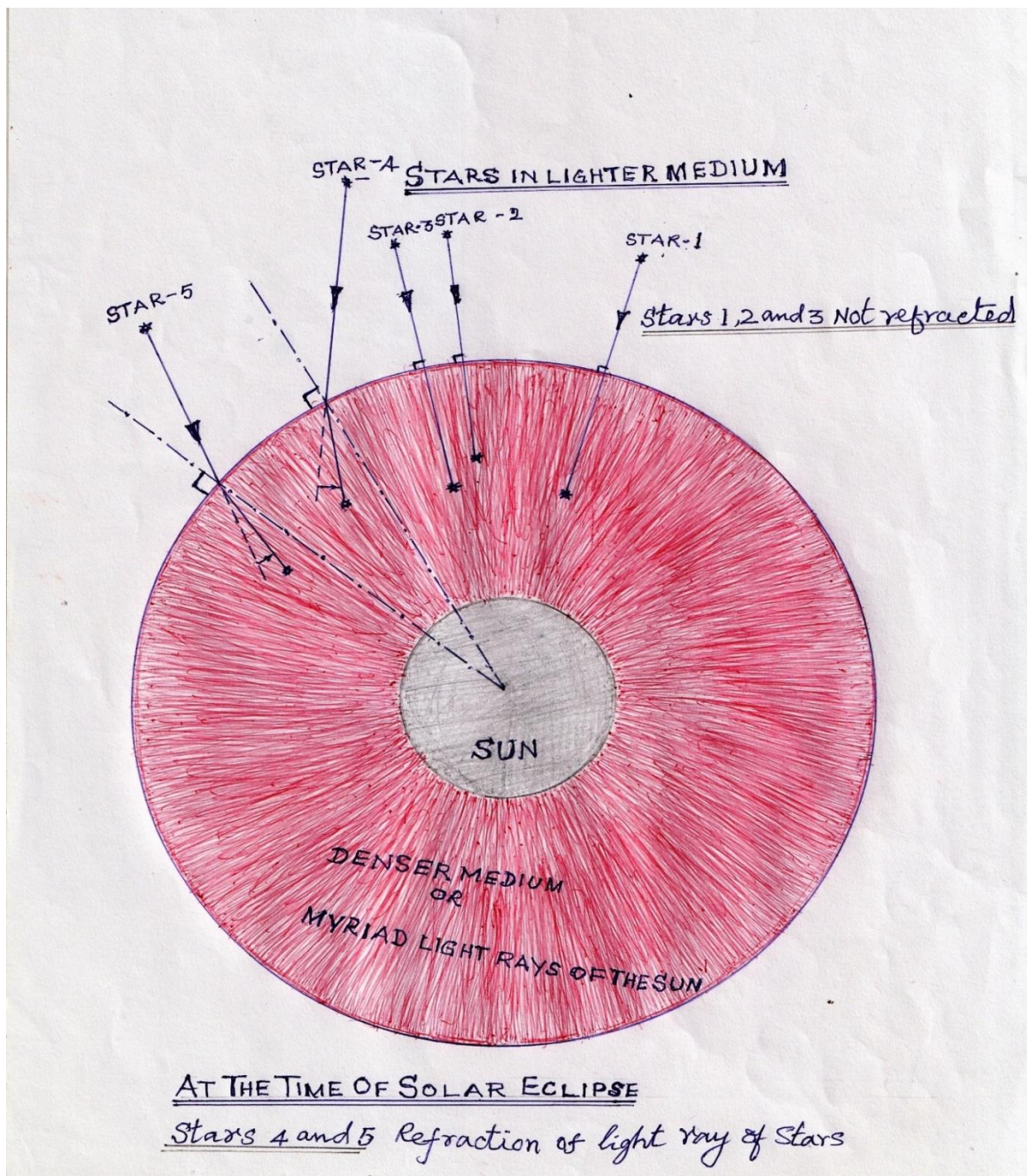
24) Other light ray of star passes perpendicular from the substance of lighter medium to the substance of denser medium of sphericity around the sun it is parallel to the normal. So, this ray of star will not refract. is also taken in to account for consideration.

25) While the sun was far away behind the observer twinkling of stars was photographed in the lighter medium substance of sun rays in the space. This photograph clearly shows the position of stars in the lighter medium substance of the sun rays. After six months later at the time of solar eclipse the same stars was photographed by the scientists while the stars were appearing in the myriad light ray of concentric spherical substance form around near the sun. In this photo few of them deviated from their places because of the myriad light rays of sphericity around the sun to some extend is denser medium. So the light rays of star passes obliquely through them from the lighter medium substance around it causes for deviation of stars. This deviation of stars are based on refraction of light. So refraction of light ray of star is cause for the deviation of star appearing in the myriad light ray of the sun at the time of solar eclipse.
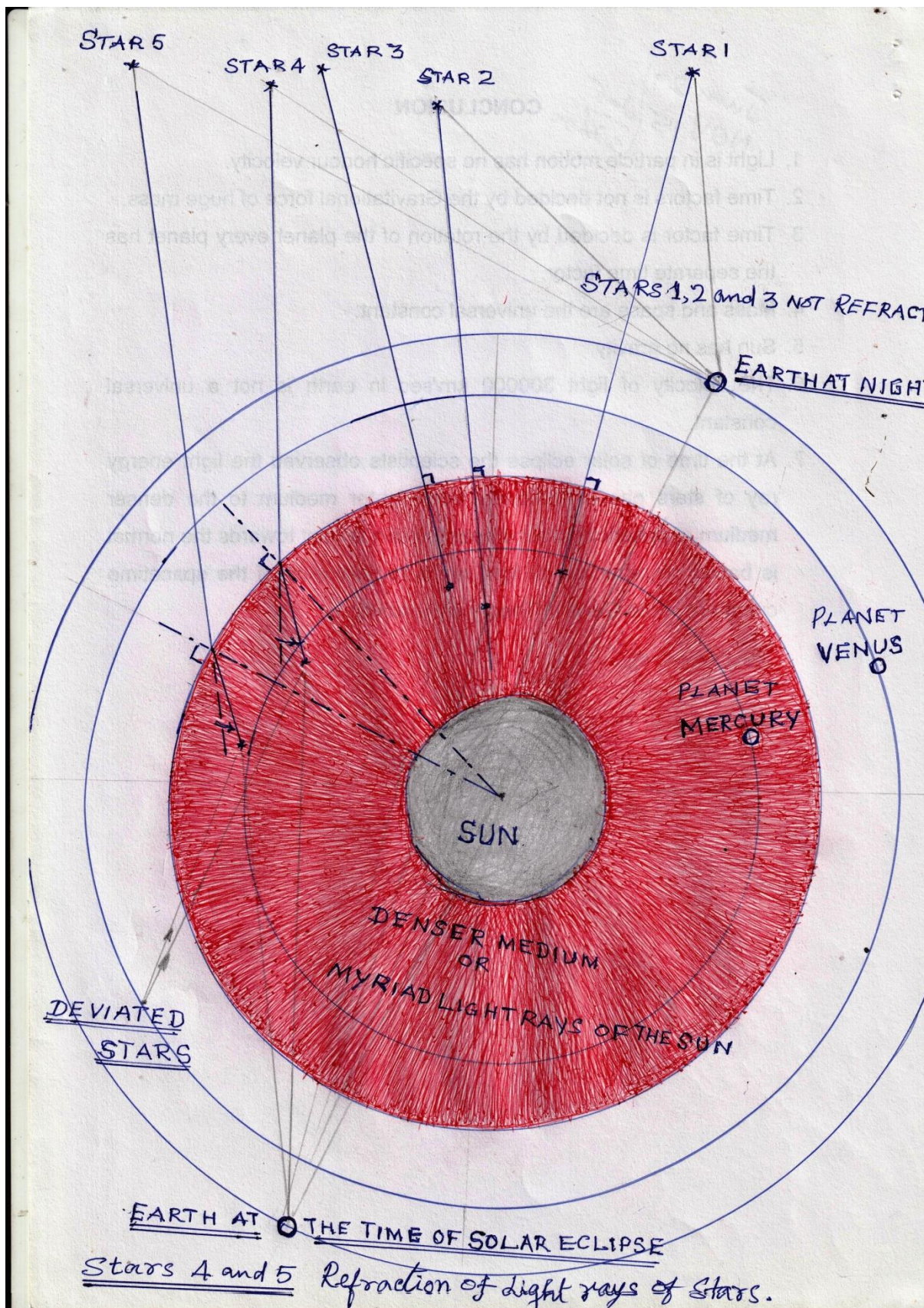
26) The incident photographed by scientist Arthur Eddington during the solar eclipse on May 29, 1919, clearly shows that the bending of starlight is not evidence for proving spacetime curvature in the General Theory of Relativity. Instead, the bending of light rays towards the normal is due to the refraction of light. This is evidenced by the fact that some stars deviated while others remained in the same position.

PART – C
Time Factor and Einstein's Postulate
WE KNOW THAT THE HEAT IS A FORM OF ENERGY. MERCURY IN THE BULB OF A

THERMOMETER RECEIVES HEAT ENERGY AND IT FLOWS THROUGH THE CAPILLARY TUBE AS A LINEAR MOTION. THIS LINEAR COLUMN OF MERCURY NOT MEASURED BY MILLIMETER OR ONE TENTH OF AN INCH.   BUT WE ARE MEASURING THE LINEAR MOTION OF MERCURY COLUMN MADE BY THE HEAT ENERGY AS TEMPERATURE.   THIS TEMPERATURE DENOTES THE DEGREE OF HOTNESS OF A BODY – IS AN AXIOM.

27) Light is a form of energy, and time represents the drift of tiny energetic particles over seconds. Time is a measurement unit, similar to temperature, and is not an illusion or a straight line. It is more akin to a shadow of an object or a taste to the tongue. Time is neither a particle nor a fluid mass, so it does not move or flow in any direction, such as forward, backward, upward, or downward.

28) Time can be considered an angle and depends on the rotation of a planet. Each planet determines its own time, and the gap of one second varies from planet to planet. Therefore, the idea that time is universally controlled is incorrect.

For Example
ROTATION OF PLANETS (APPROXIMATELY)
In 2112 Hours the Mercury rotates about 360 degree
In 5400 Hours the Venus rotates about 360 degree
In 24 Hours the Earth rotates about 360 degree
In 16 Hours the Neptune rotates about 360 degree
In 11 Hours the Uranus rotates about 360 degree
In 10 Hours the Jupiter rotates about 360 degree
In 25 Hours the Mars rotates about 360 degree
In 10 Hours the Saturn rotates about 360 degree

Sec_{Me} is a Second in Mercury $= {}^1\!/_{21120}$ degree

Sec_v is a Second in Venus $= {}^1\!/_{54000}$ degree

Sec_E is a Second in Earth $= {}^1\!/_{240}$ degree

Sec_N is a Second in Neptune $= {}^1\!/_{160}$ degree

Sec_U is a Second in Uranus $= {}^1\!/_{110}$ degree

Sec_J is a Second in Jupiter $= {}^1\!/_{100}$ degree

Sec_M is a Second in Mars $= {}^1\!/_{250}$ degree

Sec_S is a Second in Saturn $= {}^1\!/_{100}$ degree

$Sec_E \neq Sec_{Me}$
$Sec_E \neq Sec_v$
$Sec_E \neq Sec_U$
$Sec_E \neq Sec_N$
$Sec_E \neq Sec_J$
$Sec_E \neq Sec_S$
$Sec_E \neq Sec_M$

But, $Sec_v < Sec_{Me} < Sec_M < Sec_E < SEc_N < Sec_U < Sec_J = Sec_s$

Therefore, second in every planet of solar system in degree is

$$\frac{1}{54000}{}^\circ < \frac{1}{21120}{}^\circ < \frac{1}{250}{}^\circ < \frac{1}{240}{}^\circ < \frac{1}{160}{}^\circ < \frac{1}{110}{}^\circ < \frac{1}{100}{}^\circ = \frac{1}{100}{}^\circ$$

1. Planet mercury rotates upon its axis once in every 2112 hours
In 2112 hours mercury rotates about 360°

In 1 hour mercury rotates $\frac{360}{2112} = \frac{15}{88}{}^\circ$

In 1 minute it rotates about $\frac{15}{88} \times \frac{1}{60} = \frac{1}{352}{}^\circ$

In 1 second it rotates $\frac{1}{352} \times \frac{1}{60} = \frac{1}{21120}{}^\circ$

Therefore, 1 second in mercury $= \frac{1}{21120}{}^\circ$
$Sec_{Me} = \frac{1}{21120}{}^\circ$

2. Planet Venus rotates upon its axis once in every 5400 hours.

In 5400 hours, Venus rotates about 360 $^\circ$

In an hour Venus rotates about $\frac{360}{5400}{}^\circ = \frac{1}{15}{}^\circ$

In 1 minute Venus rotates about $\frac{1}{15}{}^\circ \times \frac{1}{60} = \frac{1}{900}{}^\circ$

In 1 second Venus rotates about $\frac{1}{900} \times \frac{1}{60} = \frac{1}{54000}{}^\circ$

Therefore, 1 second in Venus $= \frac{1}{54000}{}^\circ$

$Sec_v = \frac{1}{54000}{}^\circ$

3. The earth rotates upon its axis once in every 24 hours.

In 24 hours the Earth rotates about 360°

In 1 hour the Earth rotates $\frac{360}{24} = 15^\circ$

In 1 minute Earth rotates $\frac{15}{60} = \frac{1}{4}{}^\circ$

In 1 second Earth rotates $\frac{1}{4} \times \frac{1}{60} = \frac{1}{240}{}^\circ$

Therefore, 1 second in Earth $= \frac{1}{240}{}^\circ$

$Sec_E = \frac{1}{240}{}^\circ$

4. One rotation of Neptune in its own axis is 16 hours.

Time taken for 1 rotation = 16 hours

In 16 hours, Neptune rotates about 360 ^{o}

1 day = 16 hours

16 hours = 360 ^{o}

1 hour = $\frac{360}{16}$ = $\frac{45}{2}$ ^{o}

In 1 minute rotates $\frac{45}{2}$ ^{o} x $\frac{1}{60}$ = $\frac{3}{8}$ ^{o}

In 1 second rotates $\frac{3}{8}$ x $\frac{1}{60}$ = $\frac{1}{160}$ ^{o}

Therefore, 1 second in Neptune = $\frac{1}{160}$ ^{o}

Sec $_N$ = $\frac{1}{160}$ ^{o}

5. Planet Jupiter rotates about its axis in 10 hrs.

In 10 hours, Jupiter rotates about 360 ^{o}

In 1 hour Jupiter rotates about $\frac{360}{10}$ = 36°

In 1 minute it rotates about $\frac{36}{60}$ = $\frac{3}{5}$ ^{o}

1 second Jupiter rotates about $\frac{3}{5}$ x $\frac{1}{60}$ = $\frac{1}{100}$ ^{o}

Therefore, 1 second in Jupiter = $\frac{1}{100}$ ^{o}

Sec $_J$ = $\frac{1}{100}$ ^{o}

6. Planet Mars rotates upon its axis once in every 25 hrs.

In 25 hours, Mars rotates about 360 ^{o}

In 1 hour Mars rotates about $\frac{360}{25}$ = $\frac{72}{5}$^{o}

In 1 minute it rotates about $\frac{72}{5}$ x $\frac{1}{60}$ = $\frac{6}{25}$ ^{o}

In 1 second Mars rotates about $\frac{6}{25}$ x $\frac{1}{60}$ = $\frac{1}{250}$ ^{o}

Therefore, 1 second in Mars = $\frac{1}{250}$ ^{o}

Sec $_M$ = $\frac{1}{250}$ ^{o}

7. Planet Uranus rotates upon its axis once in every 11 hrs.

In 11 hours, Uranus rotates about 360 ^{o}

In 1 hour Uranus rotates about $\frac{360}{11}$ = $\frac{360}{11}$^{o}

In 1 minute it rotates about $\frac{360}{11}$ x $\frac{1}{60}$ = $\frac{6}{11}$ ^{o}

In 1 second Uranus rotates about $\frac{6}{11}$ x $\frac{1}{60}$ = $\frac{1}{110}$ ^{o}

Therefore, 1 second in Uranus = $\frac{1}{110}$ ^{o}

Sec $_U$ = $\frac{1}{110}$ ^{o}

8. One rotation of Saturn in its own axis is 10 hrs.

Time taken for 1 rotation = 10 hours

In 10 hours, Saturn rotates about 360 ^{o}

1 day = 10 hours

In 1 hour Saturn rotates about $\frac{360}{10}$ = 36°

In 1 minute it rotates about $\frac{360}{60}$ = $\frac{3}{5}$ ^{o}

In 1 second Saturn rotates about $\frac{3}{5}$ x $\frac{1}{60}$ = $\frac{1}{100}$ ^{o}

Therefore, 1 second in Saturn = $\frac{1}{100}$ ^{o} Sec $_S$ = $\frac{1}{100}$ ^{o}

29) There was no eternal time in the universe before the creation of planets. Planets create their own concept of eternal time, and the creation of time is one of their characteristics. Planets interact with events between the light energy rays of the Sun. All other times are relative to the eternal time of a planet.

30) Each planet has its own time interval in seconds. While we often use Earth's time as a common reference for universal events, this is incorrect. The time factor varies between planets, so using Earth's time as a universal measure is flawed. Consequently, the notion of time as a fourth dimension of the universe is questionable. The belief that one can access past events through time is an illusion.

31) Space in the universe is fixed and absolute, whereas time varies for each planet, as shown in the tabular column. Therefore, time is relative, not fixed, and space and time are not the same quantity.

32) The velocity of light is not influenced or connected to the gravitational force of a massive object like the Sun. Instead, the time factor is determined by the rotation of a planet. Consequently, the velocity of light is also influenced by the time factor of the planet, not by gravitational force. Therefore, the velocity of light is not constant for all observers in the universe.

Isaac Newton: Light has no specific constant velocity.

Albert Einstein: The velocity of light is constant for all observers in the universe.

33) The velocity of light on Earth is not constant for observers on other planets because it varies from planet to planet. This variation indicates that light does not have a universal constant velocity. The tabular column below demonstrates that light's velocity varies across different planets.

S. No.	Name of Planet	Time taken for one rotation in hours	Name of planet with second	One second in degree	velocity of light in planet in second
1	Mercury	2112	Sec Me	1/21120	3409 Km
2	Venus	5400	Sec V	1/54000	1333 Km
3	Earth	24	Sec E	1/240	300000 Km
4	Mars	25	Sec M	1/250	288000 Km
5	Jupiter	10	Sec J	1/100	720000 Km
6	Saturn	10	Sec S	1/100	720000 Km
7	Uranus	11	Sec U	1/110	654545 Km
8	Neptune	16	Sec N	1/160	450000 Km

34) (a) Einstein based his General Theory of Relativity on two postulates, one of which is that the velocity of light is constant for all observers in the universe. The tabular column above shows that this postulate is incorrect.

Therefore, the concept of spacetime curvature in General Relativity may be an illusion. Einstein also suggested that gravity is not a force but travels at the speed of light. This idea is flawed because gravity, being a pulling force

towards the center of planets, varies from planet to planet, and the Sun does not have gravity in this context. This further suggests that spacetime curvature in General Relativity is an illusion.

(b) Arrows are inanimate objects or particles that move in a straight line after being released from a bowstring. Similarly, tiny particles extruding from the Sun move in straight lines as rays of light. These inanimate energetic particles do not require a medium to move and their motion is not wave-like. Thus, light is characterized by straight-line motion and does not follow a curved path. Animate objects (organic masses) can move along uneven paths or curves due to their own volition or the nature of their environment, as illustrated by Einstein's example of a beetle crawling on a curved branch. However, this example is not applicable to the motion of inanimate light rays.

35) If the spacetime curvature in General Relativity were true, then moving bodies such as comets, meteors, and other terrestrial masses would deviate and revolve around the Sun like planets, due to their mass and lower velocity compared to light. Instead, these bodies move in straight lines, resembling the chord of a circle. This contradicts the idea that light rays alone bend along a curved path according to the spacetime curvature. Therefore, spacetime curvature as proposed in General Relativity seems to be a flawed concept.

36) At Madurai Railway Station, if someone states that the distance to Chennai is 400 kilometers, this distance is constant. However, if the train's arrival time is given as 4:30 PM and the journey takes 10 hours, the time factor is not fixed but varies with the mode of travel. For example, an airplane might take only one hour to cover the same distance. This demonstrates that time is not a fixed measuring unit like distance or temperature.

37) In the vastness of the universe, a person cannot determine the movements of time for any particle because there is no definitive origin or end for reference. While space is stable and universal, terrestrial masses, meteors, and planets are movable. Therefore, space is a universal constant, and the notion of time and space as separate and fixed is incorrect.

38) When firing crackers in the street, the particles expelled into space require space to disperse. If the crackers are covered by an iron pan, the particles cannot escape into space, demonstrating that space cannot be created by explosions. The concept of creating space in the Big Bang theory is flawed. Space is a natural, inherent part of the universe and cannot be created. The space medium of the universe extends endlessly beyond the solar system. **MASS OF ANY MATTER SUBMERGED AND PASSES THROUGH THE SPACE MEDIUM IS A NATURAL ONE**.

39) The time factor on a planet is determined by that planet's rotation, not by the gravitational force of a massive body. Consequently, the velocity of light, which is 300,000 km/s on Earth, does not apply uniformly to other planets and varies from planet to planet. Thus, the speed of light is not a universal constant. This further undermines the idea of spacetime curvature proposed in General Relativity. Additionally, height, length, and breadth on a planet are influenced by the planet's gravitational force.

40) A dam on Earth stores water as potential energy, which can be converted into electrical energy. If a similar dam were placed on another planet, the potential energy it stores would not generate the same amount of electrical energy due to differences in gravitational force. Mass remains constant, but gravitational force is variable, affecting the volume of stored potential energy and the resulting energy generation.
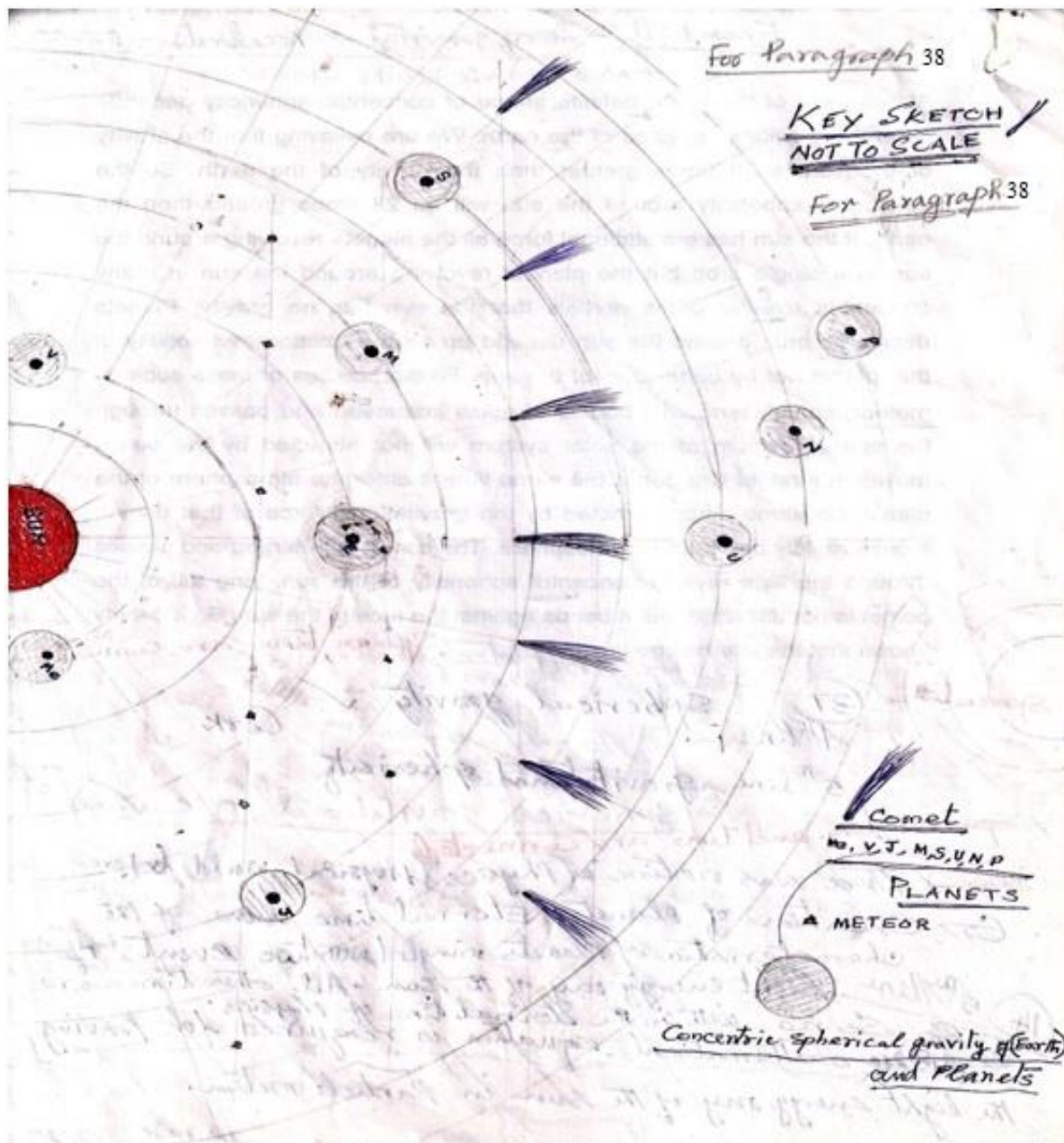
41) The Earth's atmosphere has a defined concentric spherical shape due to Earth's gravitational pull. It is believed that the Sun's gravity is 28 times greater than that of Earth. Consequently, the concentric spherical gravitational influence of the Sun would theoretically be around 28 times greater than that of Earth.

42) If the Sun had a true concentric spherical gravitational pull, all planets would be expected to revolve in a single orbit around it. However, the fact that planets orbit the Sun in various concentric circular orbits suggests that the Sun does not exert a uniform gravitational force. Planets determine their orbits based on their own solidity and rotation, not by the behavior of the Sun.

43) Foreign bodies such as meteors and comets passing through the Sun's gravitational field move in straight lines as chords of a circle. However, when these bodies enter a planet's gravitational atmosphere, they are attracted by that planet's gravity, move rapidly, and burn up in the atmosphere.

44) When a comet passes through the Sun's light rays within its gravitational field, its long tail bends towards the Sun. However, the tail is not attracted to the Sun; it bends away from the Sun's face. This observation suggests that the Sun does not have a concentric spherical gravitational field.

45) Determining the exact extent of the Sun's gravitational pull is challenging because planets from Mercury to Neptune orbit the Sun at various radii. The fact that planets orbit the Sun in different concentric circular paths provides no substantial evidence for the Sun having a specific gravitational pull or spacetime curvature as stated in General Relativity.

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46) The Sun emits a continuous stream of light particles in the form of concentric spherical shapes, which can travel throughout the universe. These particles represent kinetic energy. There are two primary types of forces: pulling (gravitational) and pushing (kinetic). Gravitational force is a pulling force towards the center of a planet and is similar to the centripetal force acting on rotating bodies. Gravity, therefore, is a type of centripetal force, not a pushing force like light energy. The gravitational influence of a planet extends only to a limited volume around it, influenced by the planet's rotation and solidity.

47) In the solar system, planets rotate on their axes and revolve around the Sun in orbits within the concentric spherical field of light energy. Day and night on a planet are caused by its rotation. If the Sun were to suddenly disappear, planets would continue to move in their orbits without deviation in the absence of sunlight. The observations from paragraphs 41, 42, 43, 44, and 45 indicate that the Sun does not exert gravitational force.

48) Isaac Newton and Albert Einstein each provided their views on the consequences of the Sun's sudden disappearance from the solar system.

49) Newton proposed that if the Sun were to suddenly disappear, the planets would immediately deviate from their orbits and move in straight lines. Einstein suggested that if the Sun vanished, the planets would move in straight lines after an 8-minute delay, due to the time it takes for light to travel from the Sun to Earth.

50) Both views are incorrect because the Sun does not exert concentric spherical gravitational pull or spacetime curvature as suggested by General Relativity. If the Sun disappeared, the planets would continue in their orbits without deviation due to the absence of sunlight. Consequently, there would be no daytime or nighttime on Earth, and artificial light would be needed continuously. Stars would be visible, but other celestial objects like comets, planets, new moons, and rainbows would not be

observable. Rain would also cease, affecting Earth's climate and visibility of various phenomena.

LIGHTS BENDS IN AN ACCELERATED FRAME - EINSTEIN

1) According to Einstein, the gravitational pull of Earth is equivalent to the force experienced in an accelerated frame (such as in an accelerating spaceship), a concept known as the equivalence principle. This can be understood by imagining a horizontally moving ball, which is pulled downward due to gravity because its speed is below escape velocity. In an accelerated frame, gravity exerts a force that bends the path of the horizontally moving ball. Therefore, in such a frame, the path of the moving object bends due to this "gravitational" force in a similar way.

2) Einstein proposed that a horizontal beam of light moving in a straight line within an accelerated frame would appear to bend, much like the curved path of a moving ball. However, this assumption is contentious. The induced gravity in an accelerated frame, as stated by Einstein, is thought to exert a force capable of pulling and bending the light ray. However, because the speed of light (300,000 km/s) far exceeds the escape velocity, the gravitational pull of an accelerated frame is insufficient to bend it. Since the force in an accelerated frame is less than the escape velocity, it is questionable whether light would indeed bend under these conditions. Therefore, Einstein's first postulate may be incorrect, suggesting that the concept of spacetime curvature in the general theory of relativity could be an illusion.

Conclusion

1) The Sun does not exert a concentric spherical gravitational pull.
2) Light consists of energetic particles (motes) and does not have a specific, universal velocity.
3) The concept of time is determined by the rotation of a planet, not the gravitational force of massive objects.
4) Mass and space are universal constants.
5) The velocity of light, commonly cited as 300,000 km/sec on Earth, is not a universal constant. Therefore, the spacetime curvature described in General Theory of Relativity is incorrect.
6) Observations during a solar eclipse indicate that light rays from stars passing obliquely through different media are bent due to refraction, not due to spacetime curvature, thus challenging the validity of spacetime curvature in General Theory of Relativity.

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