PRINT

Qn No. 1 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
Why concave lens always create virtual and erect image of the object.?

Hint.
In this case refracted Ray do not actually intersect to each other. It appears to intersect the images formed the same side of the lens. (1 score)

Marks :(1)

Hide Answer

Qn No. 2 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
what is the value of near point distance of a healthy person

(10 cm, 50 cm, 100 cm, 25 cm)

Hint..25 ***Marks :(1)***

Hide Answer

Qn No. 3 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
name the phenomenon that causes tyndal effect

(reflection, refraction, scattering, dispersion)

Hint..scattering ***Marks :(1)***

Hide Answer

Qn No. 4 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
Scattering of light by minute particles is called ----------

(scattering, dispersion, reflection, refraction)

Hint.scattering ***Marks :(1)***

.

Hide Answer

Qn No. 5 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.

The defect of the eye that Far point drops from infinity to a fixed distance is called
(pressbiopia, Longsight, Shortsight)

Hint.Shortsight *Marks :(1)*

Hide Answer

Qn No. 6 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
which among the following is the most scattered color of light

(red, blue, violet, green)

Hint..violet *Marks :(1)*

Hide Answer

Qn No. 7 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
Name the eye defect that can be corrected with a concave lens

(Longsight, shortsight, pressbiopia)

Hint.shortsight *Marks :(1)*

Hide Answer

Qn No. 8 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
.The unit of power of a lens?

(Meter, Diopter, Watt, Newton)

Hint..Diopter *Marks :(1)*

.

Hide Answer

Qn No. 9 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
The vehicle's tail lamps and signal lamps are red.

a) Which is the longest wavelength in the spectrum of white light?

b) How the wavelength and scattering of colors are related.

c) Why are the signal lamps red?

Hint..

```
a) - red

b) - The dispersion decreases as the wavelength increases.

c) - The longer the wavelength for the red, the less the scattering
```

Marks :(3)

Hide Answer

Qn No. 10 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
International Dark Skyweek.is celebrated during the week of the new moon in April
a) What is the message of celeberating like this?

b) Suggest two ways to reduce light pollution

.

Hint..
a) Awareness of environmental issues that cause light pollution

b)Reduce overuse of light sources.

Marks :(2)

Hide Answer

Qn No. 11 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn..

```
The rainbow can be seen circular from high-flying aircraft. Why can't you see it from the floor?
```

Hint..

```
From the floor, it is impossible to see 42.70 down from the line of sight.
```

.

Marks :(1)

Hide Answer

Qn No. 12 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
A child sees a rainbow in the evening.

a) In what direction would the rainbow appear?

b) What color is the color on the outside of the rainbow?

Hint.
a) East direction

b) red

. *Marks :(2)*

Hide Answer

Qn No. 13 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.

```
Find the right statements related to dispersion of light through the prism?

a) the color of light with greater wavelength is deviated more
b) the color of light with shorter wavelength is deviated more.

c) color of light with longer wavelength is deviated less

d) color of light with shorter wavelength is deviated less
```

Hint..b & c *Marks :(1)*

Hide Answer

Qn No. 14 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn..

```
Explain why light undergo dispersion in a prism concidering wavelength of elements?
```

Hint.
when wavelength increases refraction decreases

wavelength of red color is more and violet is less

.

Marks :(2)

Hide Answer

Qn No. 15 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn..

The white light in the sunlight is a composite light
a) What is meant by composite light?

b) What is the name of the phenomenon where a composite light split up into constituent colors

Hint.

a) - Light that is made up of more than one color

b) - Dispersion

Marks :(2)

Hide Answer

Qn No. 16 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn..

Some individuals find it difficult to see objects nearby.

a) By what name is this eye defect known?

b) Write two reasons for this defect?

Hint.
.a) longsight

b) size of eyeball is less, power of eye lens is less

Marks :(2)

Hide Answer

Qn No. 17 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn..

Objects can be seen clearly because of power of accommodation of the eye.

a) What is power of accommodation of the eye?

b) How does power of accommodation of the eye related to ciliary muscles?

Hint..

.

a) The ability to adjust the focus distance by varying the curvature of the lens of the eye

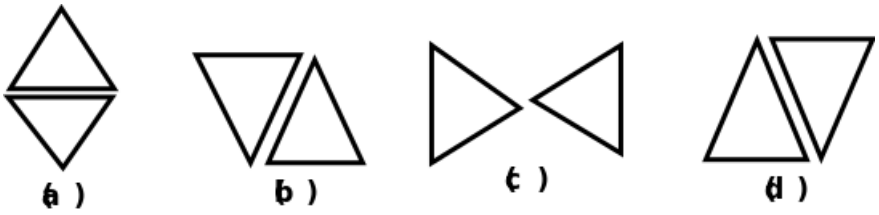
b) The ciliary muscle contracts when looking at nearby objects. The focus distance decreases. When looking at distant ob

Marks :(3)

Hide Answer

Qn No. 18 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
The following is an illustration of the experiment to demonstrate the recombination of colors using two prisms.



Hint.
a) b and d

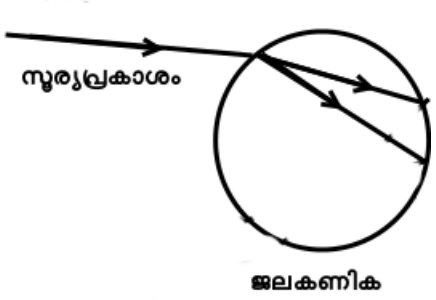
b)composite light/sunlight/whitelight

Marks :(2)

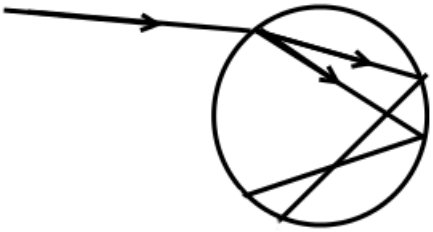
Hide Answer

Qn No. 19 *Chapter Name:6. kazhchayum Varnangalude lokavum*

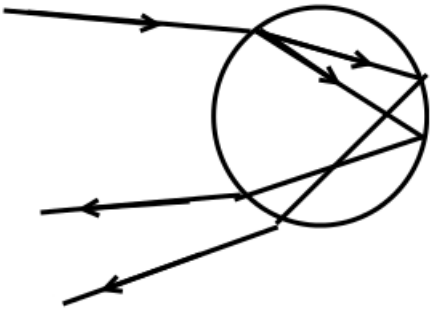
Qn.
Complete the following figure



Hint.



1



1+1

Drawing inside particle (1)

Drawing outside particle (½)

To mark V and R (½)

Marks :(2)

Hide Answer

Qn No. 20 ***Chapter Name:6. kazhchayum Varnangalude lokavum***

Qn.
You might have observed leaves of rotating fan as disc and raindrops as glass rodes during rain.

During rain ,rain drops are seen as glass rodes and while a fan is working the leaves appears as disc

a) Which peculiarity of eye is the reason behind this?

b) Explain this in detail

c) Write another situation for which the reason is same peculiarity

Hint.
a) persistance of vision (1)

b) Definition of persistance of vision (1)

c) Write any suitable situation like rotation of Newtons color disc(1)

Marks :(3)

Hide Answer

Qn No. 21 ***Chapter Name:6. kazhchayum Varnangalude lokavum***

Qn.
During the formation of rain bow, lght ray enters in a rain drop undergoes .....

a) refraction only

b) internal reflection only

c) refraction and internal reflection

d)nothing happens

.

Hint.
Refraction and internal reflection (1)

Marks :(1)

Hide Answer

Qn No. 22 ***Chapter Name:6. kazhchayum Varnangalude lokavum***

Qn.
The teacher was asked to plan an experiment to prove the scattering of light.

a) List the materials needed to perform the test.

b) Summarize the test procedure

Hint.
Dissolve sodium thiosulphate in bowl water. (1 +1 +1)

Add two drops of hydrochloric acid to it.

Monitor the change in light between the solution and the screen.

Marks :(4)

Hide Answer

Qn No. 23 ***Chapter Name:6. kazhchayum Varnangalude lokavum***

Qn.
match A,B,C columns most suitably

A	B	C
Tyndal effect	rainbow	Newtons disc
Dispersion	Blue sky	atmosphere
Scattering	recombination of colors	colloid
persistance of vision	path of light	water drop

Hint.
Tyntal Effect - path of light - Colloid (½ + ½)

Dispersion - Rainbow - Waterdrop (½ + ½)

scattering -blue sky - Atmosphere (½ + ½)

Persistence of vision - recombination of colors - Color disc ((+ ½)

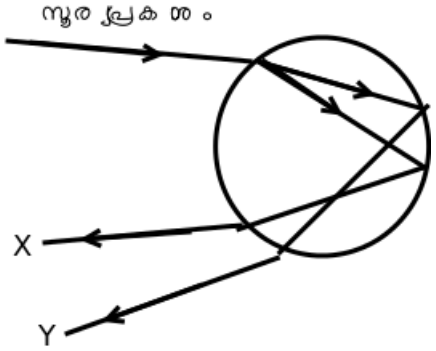
Marks :(4)

Hide Answer

.

Qn No. 24 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
Raydiagram of path of light in a raindrop during the formation of rainbow is depicted .



a)What are the colours represented by X, Y ?

b)As per diagram, which are the phenomena happening here?

c) Suggest a method to produce artificial rainbow.

Hint.
a)X- violet, Y-red

b) refraction, inernal reflection, dispersion

c)Water spraying activity or any combination action in opposition to the sun (1)

Marks :(3)

Hide Answer

Qn No. 25 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
Scattering occurs when light ray collide with tiny particles in air

a) Which colours undergo more scattering?

b) Why does the sky appear blue ?

c) " While watching from moon It is possible to see stars even in day time" .Will you admit this statement? Justify.

Hint.
a) violet, blue

b) violet , blue which having less wave length undergo more scattering

c) As there is no atmosphere the sky in moon will be dark even in day time.

Marks :(4)

Hide Answer

Qn No. 26 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
dentify the correct order of colours in a spectrum from the given list

.

a) blue, violet, red, green

b) violet, blue, yellow, red

c) violet, dark blue, yellow, green

d) green, yellow, orange, violet

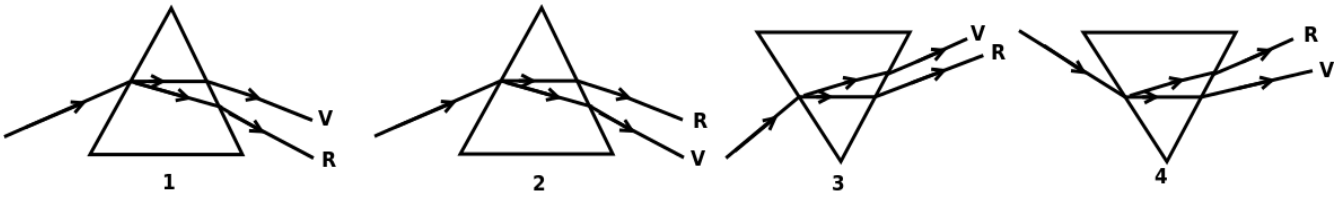
Hint.
b) violet, blue, yellow, red

Marks :(1)

Hide Answer

Qn No. 27 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
Among the given figures which is the correct one?



Hint.
figure 2

Marks :(1)

Hide Answer

Qn No. 28 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
We can see the path of light during misty mornings

a) Which phenomenon is this ?

b) Explain the phenomenon

Hint.
a) Tyndall effect

b) Due to scattaring on colloidal particles the path is seen

Marks :(3)

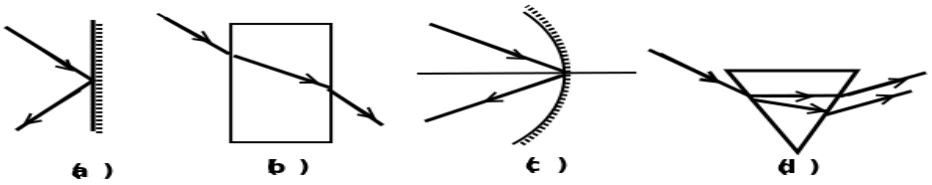
Hide Answer

Qn No. 29 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.

.

Among the below given figures , which figure indicates dispersion of light



Hint.
(d)

Marks :(1)

Hide Answer

Qn No. 30 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
Myopia and Hypermetropia are the eye defect of human beings, identify the given statement then separate the reason for Myopia and Hypermetropia.

a. Image is formed behind the retina

b. Images formed in front of the retina

c. Power of the eye lens decreases

d. Power of the eye lens increases

f. Suitable power of convex lens is used to solve this problem

Hint.
Myopia -b, d, e

Hypermetropia-a, c,f ($^{1}/_{2}$ x 6 = 3 score)

Marks :(3)

Hide Answer

Qn No. 31 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
What is the importance of eye donation in your opinion?

Hint.
a. Any age person can donate eye.

b. When we donate eye, it enlighten others life. (1+1 = 2 score)

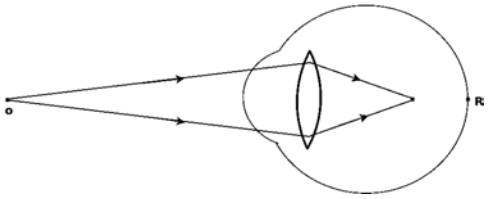
Marks :(2)

Hide Answer

.

Qn No. 32 *Chapter Name:6. kazhchayum Varnangalude lokavum*

Qn.
The image formation of a defected eye is given below



a. In which position images formed on a normal eye?

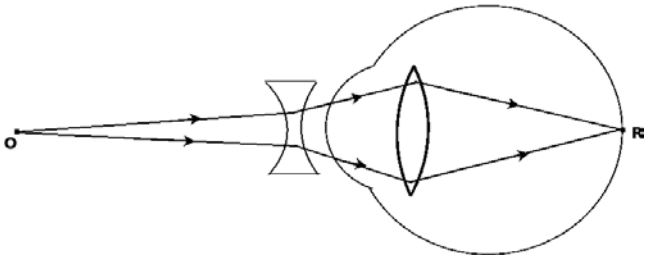
b. What is this eye defect?

c. How to solve this defect?Draw the diagram .

Hint.
a. On the retina

b. short sight(Myopia)

c. Suitable power of concave lenses is used to solve this problem.



Marks :(4)

Hide Answer