

Date:

Day:

Name

Saima Sultan

Roll No

26808 - Saima Sultan - 036



Section - II

Q No 8 :-

(d)

15, 15, 16, 16, 16, 17, 17, 18, 19

Mean :-

Mean is the average of a data.

It is obtained by :-

$$\text{Mean} = \frac{\text{Sum of observations}}{\text{Total no. of observations}}$$

$$= \frac{15+15+16+16+16+17+17+18+19}{9}$$

$$= \frac{149}{9} = 16.55$$

Teacher Feedback: _____

Median:

Median is the central most tendency of data organised in ascending or descending order.

15, 15, 16, 16, 16, 17, 17, 18, 19

$$\text{Median} = 16$$

Mode:

Mode is the most repeated value in a given data set.

15, 15, 16, 16, 16, 17, 17, 18, 19

$$\text{Mode} = 16$$

Range:

Range is the difference between the highest value and the lowest value in a data set.

$$\text{Range} = \text{Max value} - \text{Min value}$$

$$= 19 - 15 = 4$$



(b)

Total numbered cards containing numbers

(i) = 1, 2, 3, ..., 12

Probability (8) = ?

Date:

Day:

$$\text{Probability}(E) = \frac{\text{No. of possible outcomes}}{\text{Sample space}}$$

$$P(8) = \frac{2}{12} = \frac{1}{6}$$

(ii)

$$P(\text{Even number}) = ?$$

$$P(\text{Even no}) = \frac{6}{12} = \frac{1}{2}$$

(iii)

$$P(\text{perfect square}) = ?$$

$$P(\text{Perfect square}) = \frac{3}{12} = \frac{1}{4}$$

(iv)

$$P(\text{Negative number}) = ?$$

$$P(\text{Negative number}) = \frac{0}{12} = 0$$

(v)

$$P(\text{one number} < 13) = ?$$

$$P(\text{one number} < 13) = \frac{12}{12} = 1$$



(a)

Teacher Feedback _____

1 2 3 4 5 6 7 8 9 10 11 12 13 14
 A B C D E F G H I J K L M N

15 16 17 18 19 20 21 22 23 24 25 26
 O P Q R S T U V W X Y Z

2 18 15 20 8 5 18
 B R O T H E R
 $\begin{matrix} 15 \\ -17 \\ \hline =4 \end{matrix}$ $\begin{matrix} 18 \\ -14 \\ \hline =4 \end{matrix}$ $\begin{matrix} 15 \\ -7 \\ \hline =8 \end{matrix}$ $\begin{matrix} 20 \\ -1 \\ \hline =19 \end{matrix}$ $\begin{matrix} 8 \\ +6 \\ \hline =14 \end{matrix}$ $\begin{matrix} 5 \\ +12 \\ \hline =17 \end{matrix}$ $\begin{matrix} 18 \\ -17 \\ \hline =1 \end{matrix}$

17 4 7 19 14 17 1
 Q D G S N Q A

19 9 19 20 5 18
 S I S T E R
 $\begin{matrix} 19 \\ +35 \\ \hline =8 \end{matrix}$ $\begin{matrix} 9 \\ -14 \\ \hline =21 \end{matrix}$ $\begin{matrix} 19 \\ -8 \\ \hline =11 \end{matrix}$ $\begin{matrix} 20 \\ -1 \\ \hline =19 \end{matrix}$ $\begin{matrix} 5 \\ +6 \\ \hline =11 \end{matrix}$ $\begin{matrix} 18 \\ +12 \\ \hline =4 \end{matrix}$

H U K S K D



QNOT:

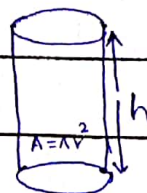
(d)

radius of cylinder = 10cm = 0.01m

height of cylinder = 36cm = 0.36m

Volume of cylinder = ?

Volume of cylinder = $A \times h$
 $= \pi r^2 h$



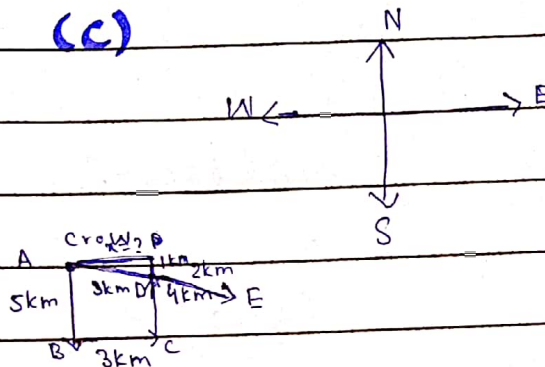
Date:

Day:

$$\begin{aligned} V &= (3.14)(10)^2(36) \\ &= (3.14)(100)(36) \\ &= 11304 \text{ cm}^3 \end{aligned}$$



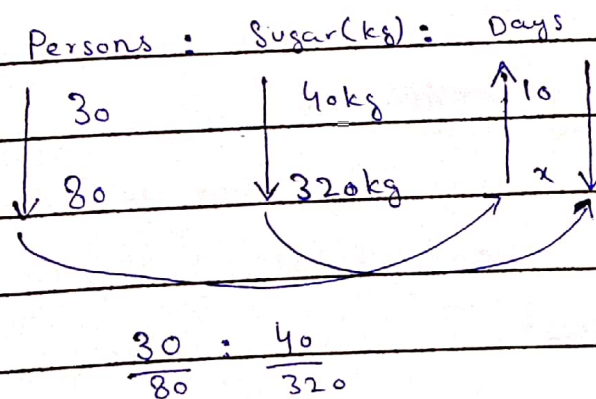
(c)



Total Distance travelled by the crow
from initial point = $\overrightarrow{AD} + \overrightarrow{DE}$
 $= 3 \text{ km} + 2 \text{ km} = 5 \text{ km}$



(b)



$$\frac{30}{80} : \frac{40}{320}$$

Teacher Feedback



Section-I

QNO2:-

(b)

Vitamins:-

Vitamins are the substances that are required by the body in small portions only in order to carry out its daily activities.

Types of vitamins:-

There are two types of vitamins i.e. fat soluble and water soluble vitamins.

Fat solul'

Fat soluble

Water soluble

- Fat soluble vitamins are those which dissolve in fats only.

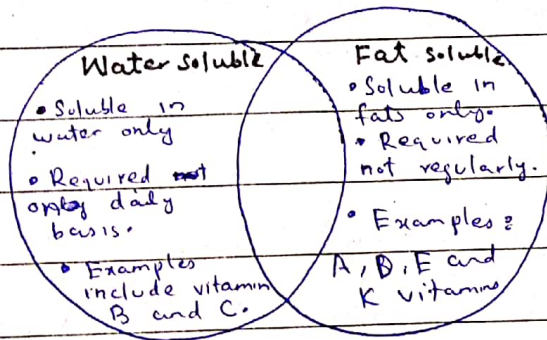
- These vitamins are not required on daily basis.

- Examples of fat-soluble vitamins include A, D, E and K.

- Water soluble vitamins are those which are soluble in water only.

- These vitamins are required by the body on daily basis.

- Examples of water-soluble vitamins include vitamin C and B complex.



Sources of vitamins:-

Vitamin	Sources
A	Carrots, spinach, fortified juices, kiwi etc.
D	Milk, cheese, etc.
E	

Teacher Feedback _____

Date:

Day:

K

C

Citrus fruits (lemons, oranges etc).

B (complex)

Seeds, beef liver etc.



c)

Structure of Eye:

Eye:

Eye is the sensory organ of the human body. It is responsible for vision.

Components of Eye:

Eye has many components which include cornea, iris, pupil, lens, retina, optical nerves, sclera and choroid etc. The functions of different parts are given below:

Cornea:

It is the transparent layer of eye. It is responsible for bending

Marks: Percent % Grade

Date:

Day:

light waves.

2) Iris:-

It is the pigmented muscle which controls the movement of pupil.

3) Pupil:-

It is the small hole of eye and from it, light enters the eye.

4) lens:-

It is responsible for focusing light onto the retina.

5) Retina:-

Retina is the most sensitive and innermost part of the eye and it is responsible for image formation. When light strikes the retina, it makes the image of the object.

6) Optic nerve:-

There are also optic nerves in the eye and their function is to carry the information of image and transfer it to the brain.

7) Sclera:-

It provides protection to the eye

Teacher Feedback _____

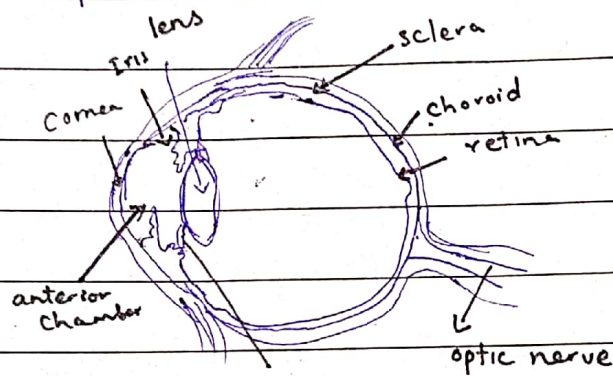
Date:

Day:

from foreign agents or particles etc.

8) Choroid:

Choroid is the reddish zone in the eye and it is responsible for the nourishment of eye and it is composed of capillaries.



Q.No3:

e) Semi-conductors:

Semi-conductors are those substances which have conductance (between conduc^x) partially.

Brain of computers:

Semi-conductors are called brain of computers because the chips used in

Marks Percent % Grade

Teacher Feedback

Date:

Day:

computers for storing information and transporting it etc. are made up of them.

Examples:

Pure semi-conductors include Silicon and Germanium.

Dopping:

The conductivity of semi-conductors can be increased drastically, through dopping phenomenon. Dopping is the process in which a small fraction of impurity is added to the semi-conductors to increase their conductivity.

Types of Dopping:

There are two types of dopping.

(i) P-type (in this proton is added as impurity)

(ii) N-type (in this electron is added as impurity)

Applications of semi-conductors:-

Semi-conductors have myriad applications in ^{modern} electronics. In fact, the branch of electronics revolves around semi-conductors.

Teacher Feedback _____

Date:

Day:

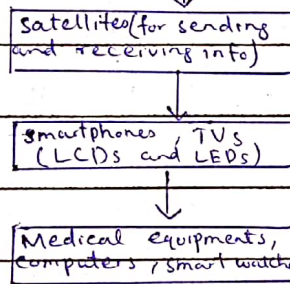
Some of the applications of semi-conductors include:-

1) Used in smartphones, TVs (LCDs and LEDs), computers (laptops, desktops etc).

2) Used in smart watches, medical equipments, satellites for communication purposes etc.

3) Used in

Applications of semi-conductors



Q no 3:-
(d)

Eclipse:-

It is the phenomenon in which one object obstructs the light of the other object.

For eclipse formation, there must be a syzygy.

Marks..... Percent..... % Grade.....

Date:

Day:

Syzygy:

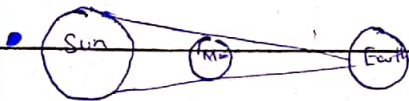
It is the one-line configuration of three bodies (sun, moon and earth).

Types of eclipses:-

There are two types of eclipses i.e. solar and lunar eclipse.

Solar eclipse

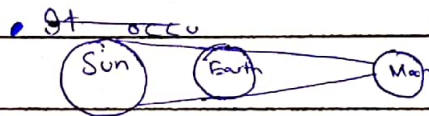
- It occurs when the moon comes in between the earth and the sun.



- Solar eclipse is visible from all parts of the earth.
- It occurs after many years.

Lunar eclipse

- It occurs when the earth comes in between the sun and the moon.



- Lunar eclipse cannot be observed from all parts of the earth many times in a year.

Solar eclipse

- Moon comes in between the earth and sun.
- Does not occur frequently.
- Visible from all parts of the earth.

Lunar eclipse

- Earth comes in between the sun and moon.
- Occurs frequently.
- Cannot be observed

Teacher Feedback _____