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GSA NOA (MOCK) vs.

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(Section - A)

Q No # 2 (a)

(i) RAM & ROM

RAM

RAM stands for Random access memory. It is volatile memory. It is temporary storage. It is mostly used in Personal computers.

There are two types of RAM.

① DRAM

② SRAM

DRAM stands for dynamic random access memory. Stored information lost if power goes down.

SRAM static random access memory. Stored information cannot be lost if power goes down.

## ROM

ROM stands for Read only memory. It is not volatile memory. It is Permanent memory. It cannot lose information - if Power goes down.

Data can be read and write in ROM.

ROM mostly used to store <sup>system</sup> level Program

There are Three types of ROM.

- ① PROM
- ② EPROM
- ③ EEPROM

PROM stands for Programmable read only memory. It is mostly used for systems

### Programming.

EPROM stands for erasable Programmable read only memory. Wrong data can erase easily using EPROM.

EEPROM stands for Electrically Erasable read only memory. Data can be erase, read, and rewrite easily through the help of EEPROM.

### (ii) Network and internet

#### Network

A network is a collection of multiple computers they are connect through internet

Internet

Internet is a network of a network which is used to communicate people through telephone and computers. We can do any thing with the help of internet.

(iii) GPS / GIS

GPS

GPS stands for Global Positioning System. First GPS was launched in 1978.

GPS satellite revolves around the earth within 24 hours.

GIS

GIS stands for Geographic Information System. It uses data that is attached to unique location.

## (iv) Nibble / Byte

### Nibble

Nibble is binary digit that is half of an 8 bits. To make a byte, a nibble is based on "edible data" metaphor.

### Byte

Each 1 or 0 in a binary number is called bit. A group of 4 bits is called a nibble, 8 bits make a byte.

## (v) Natural Satellite / Artificial Satellite

### Natural Satellite

It has no own light. It gets the light from other stars like our earth gets the light from the sun. They revolve around the sun.

## Artificial Satellite:

Artificial satellite are man made satellite. They revolve around the earth. mostly they used to for communication system.

(B)

write a note on  
Optical fibers.

Optics

Study of Property and of light and its Propagation that is called Optics.

Optical fibers

↓ These are the Strands of glass which are used to transmit light signal from one point to

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Other Point in the telecommunication.

It has high density.

Types There are different types of optical fibers single mode step index fiber, multimode fiber, multi graded index graded mode.

(C)

Distinguish water soluble and fat soluble vitamins by giving brief account of all the vitamins.

ANS - vitamins are the essential for human health. There are two types of vitamin

① Fat soluble vitamin

② water soluble vitamin.

we can get ~~with~~ these vitamins from different

Sources like milk, meat,  
grain and Dry fruits etc

B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub>, B<sub>5</sub>, B<sub>6</sub>, B<sub>7</sub>, B<sub>9</sub>  
and B<sub>12</sub> are water soluble  
vitamin.

They are essential for  
health and nervous system.

(V)

Explain working of kidney in  
human physiology.

Ans - kidney is the  
one of the most  
important organ of  
our body's system.

The main function of  
kidney is to filter  
blood and remove  
waste from body.

The renal artery is  
is blood vessel that  
carries oxygenated blood  
from heart to kidney



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Renal vein is a blood vessel that carries Deoxygenated blood from the heart to kidney. collective duct is tube in the kidney that plays an important role in the final process of urine.

Q<sup>NO</sup> # 5

(a) write uses of any five electromagnetic radiations.

ANS - Electromagnetic waves which require no medium. A wave which need medium known as mechanical medium.

ER

A stream of photons travelling with speed of

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of light in vacume or  
air. Photon are the  
Packets of energy.

energy is electromagnetic  
radiation. energy is  
directly Proportion to  
frequency.

Uses ① Gamma Rays are used  
to remove kidney Stone  
and remove tumour with  
out surgery.

② x Rays are used  
to visualized the  
internal structure of body.

③ ultraviolet rays are  
used to forensic investigation.

④ Gamma rays are used  
in industrial Process.

⑤ visible lights are  
mostly used in  
office.

(b)

Explain LED.

Ans — LED stands for light emitting diode.

It is a semiconductor device that emit light when an electric current passes through it.

Diode is a two terminal electric device that allow current to follow in only one direction.

Depletion is a region that forms the Junction of P and N.

Potential barrier is an electric barrier difference that exist at the Junction of P and N.

(C)

Describe in Short Ceramics  
and Semi-conductors.

Semi conductors

Semi conductors are  
the material that  
have Properties.

There are three types  
of material

① Conductors

② Insulators

③ Semi conductors.

Semi conductors

These are the  
materials having electrical  
Properties in b/w conductors  
and ~~semi conductors~~ insulators.

Silicon and Germanium  
are the best semi conductor

↳ Intrinsic semi conductor  
are Pure semi conductors  
with no impurity.

1/1/20

Extrinsic semi conductors  
are not pure semi conductors  
because impurity is  
added in this.

(D)

write a note on Polio.

Polio

It is infectious  
viral disease that  
some times in the result  
of Paralysis

once the  
virus enters the blood,  
the virus may cause one  
of the four types  
of illness marked by  
varying severity.

Blood test indicates  
the presence of antibodies  
specific for the virus  
will also confirm a  
Polio infection.

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Physical therapy can  
also used to cure  
the Polio.

## (Section B)

(a) Average of 7 - consecutive  
numbers is 20. Find the largest  
of these largest number

(b)

A told B that c is his brother's nephew. D is A's cousin but not the brother of c. what relationship is there b/w D and c.

Solution -

- who is D — A cousin
- who is D — not brother of c
- who is c — A father's nephew

So -

Ans -

D and c are cousin

(C)

Find the next number in the sequence = 7, 12, 19, 28, 39

Solution

7, 12, 19, 28, 39

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(D)

Sum of money is to be distributed among A, B, C and D in the ratio of

5:2:4:3. If C gets

Rs. 1000 more than D, what is B share.

Solution

$$A \text{ share} = \frac{5}{14} \times (2x)$$

$$B \text{ share} = \frac{2}{14} \times (2x)$$

$$C \text{ share} = \frac{4}{14} \times (2x)$$

$$D \text{ share} = \frac{3}{14} \times (2x)$$



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$$C \text{ Share} = D \text{ share} + 1000$$

$$\frac{4}{14}(x) = \frac{3}{14}(x) + 1000$$

$$\frac{4x}{14} = \frac{3x}{14} + 1000$$

$$\frac{4x}{14} = 3x + 1000(14)$$

$$\frac{4x}{14} = 3x + 14000$$

$$4x = 3x + 14000$$

$$4x - 3x = 14000$$

$$x = 14000$$

$$B \text{ share} = \frac{2}{14} \times 14000$$

$$B \text{ share} = 2000$$

## Q No 8

(a)

Ali is standing 10 meters away from tree the distance of his eyes from his feet is 1.5 meter. Given that the distance from his eyes to the top of the tree is 15 meters find the height of tree.

Solution

Distance from Ali eyes = 1.5 meter

Distance from Ali to tree = 10 meter

Distance from Ali eyes to the top of the tree = 15 meter

$$\frac{H}{10} = \frac{15}{1.5}$$

$$\Rightarrow \frac{h}{10} = 10$$

10 multiply both side

$$\frac{h}{10} = 10(10)$$

$$\boxed{h = 100}$$

(B)

Find the correct word

1. LNUGFF  
Flunge

2. CKANS  
SNACK

3. CIRFFE

4. EERANMGGTP  
POMEGRANATE

5. MNIKPPU  
PUMPKIN

(D)

Solution

$$\text{Base Area} = (230.6)^2$$

$$= 53145.16$$

$$\text{Volume} = \left(\frac{1}{3}\right) \text{Base Area} \times \text{height}$$

$$= \left(\frac{1}{3}\right) 53145.16 \times 146.6$$

$$= 2499477$$