NAME : Muhammad Umer Azmat

Batch : RWP OB - 36 (online).

(Part II)
(Section A)

QNO2):-

(a) i-

RAM	ROM
- Stands for Random Access memory	- stands for Read only memory.
- is expensive as compared to ROM	- is cheaper as compared to RAM
- DATA can be modified, erased or Read.	- Data can only be read. It cannot be read or modified
- Data of RAM is very volatile.	- Data of ROM is non-volatile, it is permanent.

ii-

" The Network is a collection of computer devices and systems that are linked togather using LAN, WAN. where as Internet is a global system to link various types of electrical devices worldwide."

iii-

GPS stands for Global positioning system and it is used for navigation. where as GIS stands for Geographic Information

system and used for mapping and analyzing things that exist or happen on Earth.

v-

Natural Satellites are the celestial bodies that orbits around the planet naturally. Moon is the example of natural satellite.

Artificial satellites are the computer based machines that are sent to space from earth for various purposes. These are man made. ISS (International space station) is the example of Artificial satellite.

(b)-

Optical are the strands of optically pure glass as thin as human hair that caries digital information over long distances.

• Optical fibre works on the principle of total internal reflection.

• Total internal reflection minimize the consumption of energy.

2- Signals can travel over long distances with less energy.

Construction:

Optical fibre is made up of

• Core (Glass)   • Cladding (Glass or plastic)

• Buffer coating (for extra protection of core additional layer).

· Jacket.

Advantages:

1- Ability to carry much more information and deliver it to with great fidelity.

2- Supports high data rates.

3- Secure Communication System.

_____

(C)

· Fat Soluble vitamins are those vitamins that are soluble in fat. These are A, D, E and K vitamins.

1- Vitamin A : This vitamin helps in growth, body repaire and keep the skin smooth. Its deficiency causes night blindness and major sources of this vitamin is fortified milk, leafy veg, eggs cream.

2- Vitamin D : It is important for the growth of children. Its deficiency causes rickets in children its major sources are Egg yolk, liver, fish, milk.

3- Vitamin E : It is important in wound healing prevention of sterility and its deficiency causes slows down the process of RCBs. Major sources are leafy green veg, soya bean, cotton seeds.

4- Vitamin K : It is important in blood clotting and its deficiency causes blood clotting disorder and its major sources are milk, fish, egg etc.

- Water soluble vitamins – are the vitamins that are soluble in ~~vitamin~~ water. Water-soluble vitamins are B and C.

1- Vitamin B – Vitamin B plays very important role in Cholestrol production, for the production of anti-bodies, carbohydrate and fat metabolism etc. Its deficiency causes BeriBeri, skin problems, Anemia, cramps etc and Its major sources are Milk, Meat, fish, poultry, Fruits etc.

2. Vitamin C – $\div$[It is important. in wound healing and breaking blood clots]$^\times$It is important for protection of bones, teeth and gums and its deficiency causes scurvy and its major sources are citrous fruits, guava, pineapple etc.

————————

(d)

Kidney is the very important of the human body. It plays very important role in Urine formation. Urine formation is carried out in three phases.

1- Glomerular filteration:

- Glomerulus filteration occurs in glomerulus.
- This process occurs accross three layers
  - Epithelium of Bowman's Capsule.
  2- Endothelium of glomerular blood vessels.
  3- The membrane between two layers.

Date: _____

2- Reabsorption:

· Reabsorption is achieved by active and passive transport.

· 99% filterate is absorbed by the renal tubules.

3- Urine formation:

· Urine produced 95% water and 5% nitrogenous wastes.

· wastes such as urea, amonia are excreated in urine.

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QNO3):-

(a)

Black hole is a massive object in space that is so dense that within a certain radius, its gravitational field does not let anything to escape from it, not even light.

According to NASA "The black hole forms when a star with in more than 20 solar mases exhausts the nuclear fuel in its core and collapses under its own weight".

Black holes are the regions where an enarmous amount of mass is packed into a tiny packet.

————————

(b)

- In every cyclone, there is
  1. low pressure area (Attracts cool Air).
  2. High pressure area.

- The outer area of cyclone is/consists of cool air coming from high pressure area which surrounds the central low pressure area. This region is called the eye of the storm.

- The low pressure region is a warm region, where the air is warm, which expands and then rise.

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(c)

Some Common Causes of floods are.

1. Excessive Rain
2. A ruptured Dam
3. Rapid snow/ice melting in the mountains.
4. Cyclones
5. Typhoons
6. Storms and tidal Surges.

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(a)

Sun is a star and a huge ball of gases, mostly hydrogen and helium. Sun produce its own energy and it produces energy through nuclear fusion and give off their own light.

The main factors that are responsible for the gravity of Sun are its huge mass and the distance from objects.

Solar winds are the winds that travel throughout the solar system and at the speed of one million miles per hour.

_____

(Section B)

QN06):-

(a)

Current Value = 8748 Rs

depreciation every year = 10 percent.

Price of three years ago = ?

For last year = 8748 × 0·1

= 874·8

= Current price + 10 percent

= 8748 + 874·8

= 9622·8

For 2nd year = 9622·8 × 0·1

= 962·28

= Current price + 10 percent.

= 9622·8 + 962·28

= 10585·08

For 3rd year = 10585·08 × 0·1

= 1058·508

= current price + 10 percent

= 11643·588

So, the actual price of washing machine 3 years ago is 11643·588 Rs.

②

②X1200

(b):

A father is 4 times the age of his daughter.
After five years, father's age = 3 times
& and fum
further after five years, the father's age
would be the TWO TIMES of his daughter.

@ 2,5

_____

(c)

football has circular shape and we have
to find the volume so, we use the area
formula which is πr^2

Diameter = 12 cm , radius = $\frac{12}{2}$ = 6 cm

Area = 3.14 × (6 cm)²

= 3.14 × 36 cm²

= 113.04 cm²

_____

(d)

Each side of Pentagon = 281 m

Pentagon is regular so,

Perimeter of pentagon = 5a , where a is the
side of pentagon.

= 5 × 281 m

= 1405 m

②

_____

QNo1):-

(a) :-

Average of 7 consecutive numbe $= 20$

Largest number $= ?$

So, assume x is the number.

$$\frac{x + x+1 + x+2 + x+3 + x+4 + x+5 + x+6 \cancel{+7}}{7} = 20$$

$$\frac{7x + 21}{7} = 20$$

$$7x + 21 = 20 \times 7$$

$$7x = 140 - 21$$

$$7x = 119$$

$$x = \frac{119}{7}$$

$$\boxed{x = 17}$$ Ans

(b)

C is the fathers nephew of A.

D is cousin of A but not a brother of C

Both D and C are cousins to A and they are not brothers, so D and C are are cousins to each other.

(c)

Find next number.

7, 12, 19, 28, 37, _____.

$= 7 + ⑤ = 12 + ⑦ = 19 + ⑨ = 28 + ⑪ = 39 + ⑬ = 52$

Here, odd numbers adding to the next and starting from 5.

So the missing number is 52.

(d)

A : B : C : D

5 : 2 : 4 : 3

$4x - 3x = 1000$

$\boxed{x = 1000}$

we have to find B's share so,

$B = 2x$

$= 2(1000)$

$= 2000$ Ans.