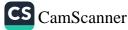General Instructions

1. Give numbering to headings
2. Do not write lengthy paragraphs. Write medium sized paragraphs with headings.
3. Do not use table for comparison and contrast questions.
4. Draw figures/diagram/flowchart where needed.
5. Start new question from fresh page.
6. Write unit of the answer in ability section.
7. Explain mathematical steps and the reasoning for better score.
8. Change colour scheme for references to give them more visibility.
9. Manage time well.
10. Wide page borders are discouraged. Should be reasonable.
11. Avoid writing wrong references.
12. Give more weightage to expressedly asked part/s of the question.

Question 5

a. What is networking and Internet standards?

24.5

Answer:

a. NETWORKING:

the exchange of information, data, and ideas through some medium which connects two or more devices or computers is called as Networking. It begins with some Point to can interconnect and providing access to and data more easily.

Types of Networking:

1. Personal Area Network (PAN)
2. Local Area Network (LAN)
3. Wide Area Network (WAN)
4. Metropolian Area Network (MAN)

b. INTERNET STANDARDS:

Internet standards are the sort of networking mechanism which defines the aspects of world wide web. These standards are thoroughly tested by some Internet societies which later are applicable and implemented on the world wide web.
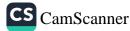
2.5

These webs can be as HTML, URL, HTTP etc.

b- What is Artificial Intelligence. Define its Pros and Cons.

ANSWER:-

Artificial Intelligence is the fifth generation (Gen 2) technology of machine learning capabilities, which is used to do tasks, Problem-solving, done by humans.

Pros of Artificial Intelligence:
It facilitates the humans in almost every field of life.
It is effective and accurate which allows in the analysis of data as well.
It reduces the cost of cheaper products and service; and allows to improve human decision making.

Cons of Artificial Intelligence:
It is uncontrollable as they don't have emotions and feelings.
It is the cause of unemployment and does not implement any critical thinkings. Also, these AI's are highly costs.

c- How is an 'optical fiber' constructed?... ......?

Answer:

OPTICAL FIBERS:

Optical fibers are made of either from glass or plastic and are thin as human hair. This thin layer of strand is covered in the four, layers of plastic

Protective

Which are tested in various areas. These are non-metallic in nature, which transmit data using light technology in glass thread.

It transfer electromagnatic radiations through radio magnetic ~~to~~ radiations which are not affected by the ~~environmen~~ environments pollution.

d- Comprehensive note on Bioavailibility of nevtriants.

ANSWER:-

Bioavalibility of nevtrients is defined as the rate of a nevtrients that is absorbed and utilized by the body, which causes an active effect in the

body. It could be included in any mineral, protein, vitamin etc. Nutrient Bioavailibility is dependant on multiple factors.

FACTORS WHICH ARE EFFECTED BY BIOAVALIBILITY OF NUTRIENTS:

1- Age
2- Gender
3- Health
4- Consumption rate of body
5- Personality maintenance.

Question 4:

a- What is solid waste management....?

ANSWER.

SOLID WASTE MANAGEMENT:-

Solid waste management is defined as the procedure of complete process of collecting, treating and disposing of solid wastes. The wastes are collected from multiple areas and through different techniques, these wastes are treated for the end results which is known as disposal of the waste.

National Solid waste management Strategies in Pakistan:

Pakistan Produces huge amount of waste every year which ~~the~~ is managed for disposal ~~in~~ by different ~~strategies~~ strategies as

1- Landfill methods
2- Recycling method
3- Size reduction
4- Screening method.

Although there are many issues in these strategies implementation as well.

Methods to improve the Solid waste management situation in Pakistan:

There are multiple ways through which we can make the situation better of Solid waste ~~the~~ in this country as;

1- Educating, training, and awareness Compaiognes.
2- Installment of sustainable waste containers in every street.
3- Prepare and Segregate different th type of waste from each other.
4- Effective collection methods
5- Implementation of R's of waste. Reduce, Reuse, recycle, Recover and residual management techniques

What is GIS.....?

ANSWER:-

GIS:

GIS is known as Geographic Information System which is a computer system used capturing, storing and checking data related to the different positions on the Earth surface. GIS is installed technology of maps and integrated location of data accessing.

Components of GIS:

There are five components of GIS, which supports the system for the implementation, which are as followed;

Hardwares

Softwares;

Data,

People and;

methods.

What are Montreal and kyoto.....

Answer:

These protocols are the global agreements on the emission of

Greenhouse gases.

Montreal Protocol:

This Protocol was established as a Global agreement which was related to regulate Consumption and Production also, to reduce the emissions of Ozone depletion substances.

Kyoto Protocol:

It is an international agreement which was related to with the reduction of Greenhouse gases emission and also the reduction of Carbon dioxide emissions.

Carbon market:

The trading market of carbons is called a Carbon market. It is a voluntary market place where buyers and sellers come up with the intention purchase or sell their carbons according to their need and demands.

Question b.

a- Divide $370 . . . . ?

SOLUTION:

Total amount = $370.

division = Second part is $\frac{1}{4}$ of third

ration between

first and third = 3 : 5.

let the parts are represented by (x)

so,

first & third part = $3x : 5x$.

and

second part = $\frac{1}{4} 5x$.

$$= \frac{5x}{4}$$

so, $3x : \frac{5x}{4} : 5x = 370$

$\Rightarrow 12x : 5x : 20x = 370$

$37x = 370$

$x = 10$

putting $x = 10$ in each part.

$3x = 3(10) = 30$

$\frac{1}{4}(5x) = \frac{5(10)}{4} = \frac{50}{4} = 12.5$

$5x = 5(10) = 50$.

so,

$30 : 12.5 : 50 = 370$

b- Kashif required $ 800 . . . . ?

ANSWER:

Requirement = Rs. 800

Borrowed from brother = 20%

$$= \frac{20}{100} \times 800$$

$$= Rs. 160$$

Mother funding = 30%

$$= \frac{30}{100} \times 800$$

$$= Rs. 240$$

Bank money = 200

adding all money to get
how much money he got
in total = 200 + 160 + 240

$$= Rs. 600$$

Remaining money =

$$= Rs. 800 - Rs. 600$$

$$= Rs. 200$$

So, he need Rs. 200 more.

c- Three bags Contain . . . .

SOLUTION:

Three bags Contain = 3 red, 7 black

8 red, 2 black

4 red, 6 black balls.

random Sampling for red
ball.

$$\text{random sampling} = \frac{\text{number of ways}}{\text{total possible outcomes}}$$

$$= \frac{3}{15}$$

Probability is $= \boxed{1/5}$
of red ball

d- The traffic lights · · · · · · ?

SOLUTION:
traffic lights of 3
different roads change= 24 sec : 36 sec , 72 sec

Changing simultaneously = 8:20:00hrs

at again these will
change at
$$= 8:21:12.$$

Question 8.

6. If ROSE is coded · · · · · · · ?

SOLUTION:
ROSE = 6821
CHAIR = 73456
PREACH = 961473
SEARCH = 214673

Working?

c- If A is the brother of C ----

SOLUTION:

A is brother of B
B is sister of C
C is father of D
D is ? to A = ?

So,
- A and B are siblings
- B and C are siblings
  (B is sister of C)

- C is father of D
  So, D is child
  C is father.

- D is nephew of A.

d- Kashmala moves ....

solution:

Kashmala travels w
35 km = west.
takes right turn = 50km
then right turn = 35 km

distance of her
original position
= 50 km.