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Tuesday

تاریخ

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Batch : ST

Mock Exams CSS 2025 (August)

(Part - II)

(Section - I)

(Q. No. 2)

(a)

Malnutrition:

Malnutrition or poor nutrition is defined as prolonged period of having inadequate energy or nutrient intake.

Causes:

Causes of malnutrition includes eating too little (undernutrition) or eating too much (overnutrition).

Consequences:

Consequences of malnutrition includes:

- i) decreased cognitive functions.
- ii) delayed wound healing.

iii) Physical exhaustion

iv) Poor metabolism

v) Affect digestion.

stomach

diarrh

v) In or

it w

food

avoid

damn

food

Chi

for

— a b —

Food Contamination

Adulteration

i) Food contamination

means when a

harmful microorganism present in food can

cause illness to the consumer.

i) Adulteration is

intentionally

adding or replacing

the food substances

with poor substances

or components.

ii) That includes dirt

from unwashed

fruit and vegetables,

Pest dropping in

food etc.

ii) This can be done

to increase weight

or appearance of food

constituents can include

Chalk powder, stones, sand^{etc}

iii) Contamination can

be chemical,

physical and biological

iii) It can be accidental,

metallic, Packing

hazard etc.

iv) It can cause

vomiting, fever

iv) It can cause

diarrhea, nausea,

stomach pain,
diarrhea etc.

allergic reactions,
diabetes etc.

v) In order to prevent
it we can avoid
food past its use,
avoid leaked or
damaged preserved
food, don't buy
chilled or frozen
foods.

v) In order to prevent
it check all the sealed
packaged foods, wash
thoroughly fruit and
vegetables, check
packaging of milk,
oil, and yogurt
etc.

Computer buses:

A bus is a communication system that transfers data between components inside a computer or between computers.

Types:

There are three types of buses that are used for data transfer.

- i) Address bus
- ii) Data bus
- iii) Control bus

RAM

ROM

- | | |
|---|--|
| i) It is random-access memory. | It is read only memory. |
| ii) It is a short term memory in computer. | It contains data that can't be changed. |
| iii) It's where the data is stored in computer processor for applications to run. | It contains the data even after the power to the device has been turned off. |
| iv) It is made up of semiconductors. | It is made up of semiconductor device. |

~ (d) ~

Geo-Stationary Satellites :

A geostationary satellite is in an orbit that can only be achieved at an altitude very close to 22236 miles and which keeps the satellite fixed over one longitude at the equator.

Natural Satellite

i) Natural satellites are the objects (natural) that orbit planets.

ii) These are natural solid bodies.

iii) Moon is the natural satellite that orbits around the Earth.

Artificial Satellite

i) Artificial satellites are the man made machines that orbit planets.

ii) These are usually machines.

iii) There are almost 8000+ satellites that orbit around the Earth.

Artificial satellite of Jupiter:

Jupiter has one artificial satellite orbiting it.

(Qvo-4)

Q1)

Causes of floods:

Following

are the causes of floods:

- i) Rapid Rainfall / Heavy Rainfall.
- ii) Tsunamis in coastal areas.
- iii) Tropical cyclones
- iv) Ice or debris jam in a river.

How floods of 2022 different from 2010?

In 2022, there were 5 extreme precipitation events while in 2010 it was three. In 2010 the floods affected $\frac{1}{5}$ of Pakistan's land area while in 2022 $\frac{1}{3}$ of country's area was affected. Flood of 2010 caused damage of approximate \$12.9 billion in damage while of 2022 caused \$10 billion in damage.

Role of NDMA:

National disaster management Authority (NDMA) at times of flood coordinated with local NGO's for rescue and requested future plans to deal with flood situations, directed infrastructure projects to prevent costly damages.

~*~*~

Star

Planet

- i) Stars are huge celestial bodies made up of hydrogen and helium.
- ii) They emit their light and energy from nuclear fusion reactions.
- iii) Stars are bigger than planets

- Celestial bodies that orbit around the sun are termed as planets.
- They don't have the ability to emit light and energy from fusion reactions.
- Planets are smaller than stars.

How a star becomes a black hole?

A star becomes a black hole when its core collapses in on itself. This collapse is caused by the star running out of nuclear fuel, which stops the radiation pressure from the core.



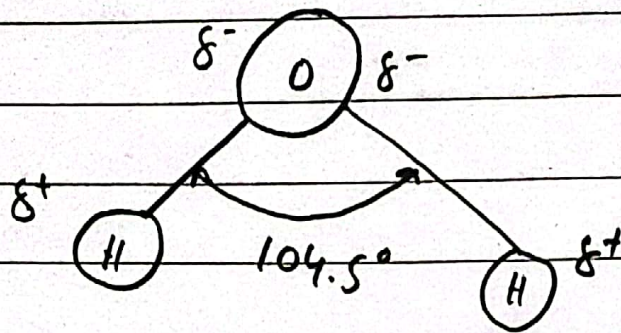
Why do atoms form chemical bonds?

Atoms form chemical bonds to achieve a more stable state with lower energy. This is usually achieved by filling their outer electron shell, or satisfying the octet rule by having eight valence electrons.

Structure of water:

(3)

A water molecule consists of two hydrogen atoms bonded to an oxygen atom, and its overall structure is bent.



~(d)~

Conductors =

A conductor conducts electricity as it offers little or no resistance to the flow of electrons, thus leading to a flow of electrical current.

Example =

Examples of conductors include graphite, mercury, water, steel etc.

Semiconductors:

Semiconductors are chemical elements or compounds that can conduct electricity under certain conditions, but block it under others.

Semiconductors have electrical properties that fall between conductors and insulators.

Example:

Examples of semiconductors include antimony, arsenic, boron, carbon, germanium, selenium, silicon, sulfur and tellurium.

Metals:

Metals are shiny, lustrous and are good conductors of electricity and heat even at absolute zero.

Metals can be easily molded and deformed.

Example:

Copper, lead, Nickel, titanium,
Lithium etc.

Plastics =

Plastics are material made from synthetic or semi-synthetic organic compounds that can be molded into solid objects.

Examples:-

Polyethylene,
Nylon 6, polystyrene.

Ceramics =

Ceramics are generally made by taking mixtures of clay, earthen elements, powders, and water and shaping them into desired forms.

Example:-

Earthenware,
stoneware, porcelain.

$$x = \frac{-(-12) \pm \sqrt{(-12)^2 - 4(13)(-53)}}{2(13)}$$

$$x = \frac{12 \pm \sqrt{144 + 2756}}{26}$$

$$x = \frac{12 \pm 53.85}{26}$$

Extra

$$x = \frac{12 + 53.85}{26}$$

$$x = \frac{12 - 53.85}{26}$$

$$x = \frac{65.85}{26}$$

$$x = \frac{-41.85}{26}$$

$$x = 2.5$$

$$x = -1.6$$

Q. No. 7

(a)

According to question the condition is:

$$\frac{x}{6} + 50 = 60$$

$$\frac{x}{6} = 60 - 50$$

$$\frac{x}{6} = 10$$

$$x = 10 \times 6 \Rightarrow x = 60$$

So the missing number is
60.

(b)

Let's check the sequence to
identify the odd one.

The numbers given are:

8, 16, 24, 34, 40, 48

$$16 - 8 = 8$$

$$24 - 16 = 8$$

$$34 - 24 = 10$$

$$40 - 34 = 6$$

$$48 - 40 = 8$$

All the numbers except for
34 are multiples of 8

So the odd one is number
34.

(c)

height of tower = 15 m

the standing distance = 20 m

what is aerial distance = ?

we can use pythagorean theorem.

$$c^2 = a^2 + b^2$$

putting values

$$c^2 = (15)^2 + (20)^2$$

$$c^2 = 225 + 400$$

$$c^2 = 625$$

$$c = \sqrt{625}$$

$$c = 25 \text{ m}$$

aerial distance is 25 m.

Ex 10

Total amount paid by the man is = Rs. 30,000

Tariff of odd dates = Rs. 1000 per day

Tariff of even dates = Rs. 2000 per day

Let, x = odd days

y = even days

So,

$$(1000x + 2000y = 30000)$$

(5)

$$1000 [x + 2y = 30]$$

$$\text{if } y = 10 \text{ so;}$$

$$1000 (x + 2(10) = 30)$$

Divide by 1000

$$x + 2(10) = 30$$

$$x = 30 - 20$$

$$x = 10$$

So, total 10 odd days +
10 even days = 20 days.

~ (Qno. 8) ~

~ (a) ~

Faisal Mosque in Islamabad
is designed in the shape
of a triangle, the outer
view of these halls is
based on equilateral
triangle the formula for
this

$$A = \frac{\sqrt{3}}{4} \times a^2$$

(b)

Mixture = 60 litres

milk and water ratio = 2:1

changed ratio = 1:2

what quantity of water

further added = ?

milk and water ratio = $2+1=3$

quantity of milk = 40 litres

quantity of water = 20 litres

now, (1:2)

milk quantity = (20 litres) \times 1

water quantity = (40 litres) \times 2

= 80 litres

water initially was 20 litres

so, 60 litres needs to be

added to achieve the ratio

of 1:2

(c)

A is the brother of B means
A and B are siblings.

B is the sister of C means
C is a sibling as well.

So, A, B, C are siblings.

C is the father of D means
D is C's child.

So, A and C are
siblings C is D's father
this makes A D's uncle.

add

compare the words

R \rightarrow U (shifted 3 positions)

O \rightarrow R (shifted 3 positions)

A \rightarrow D "

R \rightarrow U "

So,

$$U + 3 = X$$

$$R + 3 = U$$

$$D + 3 = G$$

$$U + 3 = X$$

Thus, URDU will be written
as XUGX in that code.

The
Gondy