DATE: __/__/____

GSA

Aymen Tahir
Batch - 219

SECTION - II

Answer 08

(a). ROAD = UQDG
LAKE = OCNH

Rule of coding

The encrypted words are given to the real words with specific pattern. Sometimes letters are replaced by other letters with constant addition or subtraction. It can be in reserval order as well.

(b). Inlaman is the niece-in-law of man.

(c) 4, 12, 6, 18, 9, 27, ___

Answer is 13.

First is to crack the difference between alternative numbers. 4, 6, 9. The pattern of difference is two and three Next number will be the addition of ~~three~~ four. That will be number thirteen.

DATE: / /

(ii) 1, 2, 6, 24, 120, ____.

Answer is 720.

There is a multiplication of number from 1, 2, 3, 4 --- onwards with each provided number.

$1 \times 2 = 2$

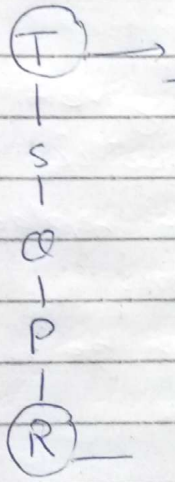
$2 \times 3 = 6$

$6 \times 4 = 24$

$24 \times 5 = 120$

$120 \times 6 = 720$

(d)



T — Tallest — 180 cm

S — ____ — 174 cm

Q — ____ — 166 cm

P — ____ — 158 cm

R — Shortest — 150 cm

Third Tallest = Q

Maximum Possible height range = 30cm.

Range will be 30cm from tallest to shorter friends.

DATE: / /

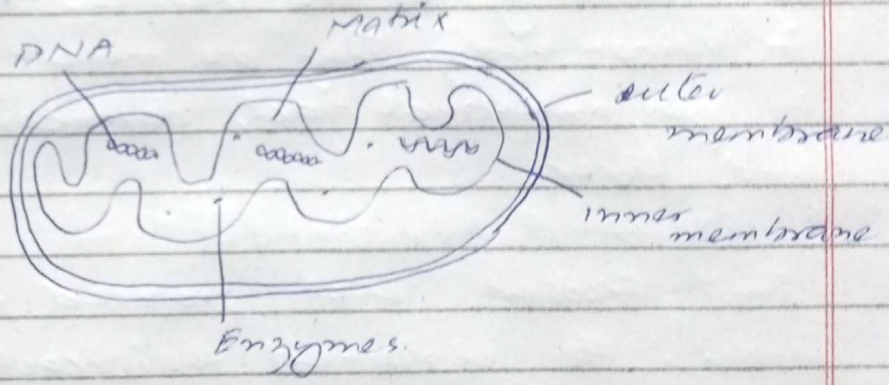
SECTION - I

Answer 03

(a)- Structure and function of Mitochondria within a animal cell.

Structure:

Mitochondria is an organelle with double membrane. Outer membrane is smooth while inner membrane is folded with space in it called matrix. This matrix contains enzymes and DNA.



Function:

It is the powerhouse of a cell, providing energy- "ATP production, by breaking down the glucose

Structure and function of Ribosomes within an animal cell.

Structure:

Ribosomes are composed of protein and RNA, Ribonucleic Acid, present inside the nucleus.

DATE: / /

Function:

Ribosomes are responsible for protein synthesis. They read the genetic coding or messenger RNA (mRNA) through the process of translation. They read the information on mRNA and by using this information, they assemble amino acid into polypeptide chains, which synthesizes the proteins

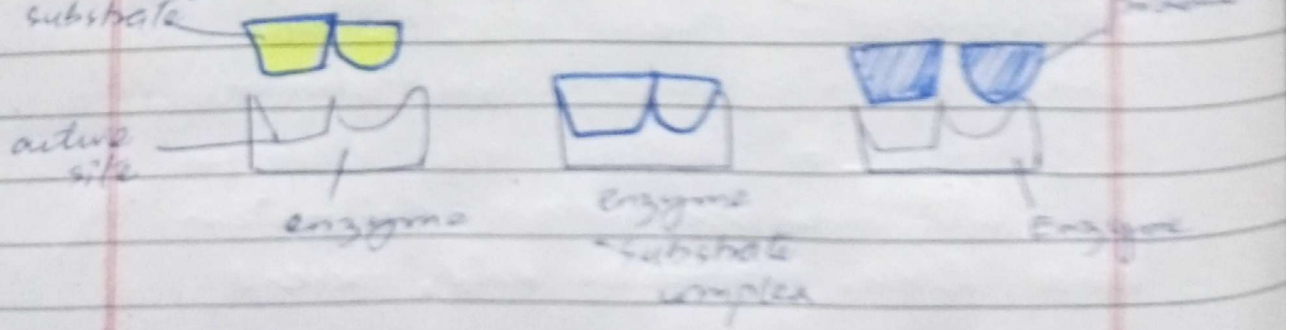
(b) - Enzymes

Enzymes are proteins found in the body, they are responsible for speeding up the chemical reaction in human body. They are present in gastrointestinal tract, pancreas and liver.

"Lock and Key" model

Emil Fischer first proposed this model. He explained the interaction between enzyme and substrate.

- Enzyme has an active site, depicted as "Lock" which fits into only one "key", that is substrate's site.



DATE: / /

Factors affecting enzyme activity

There should be an optimum temperature and pH for a proper enzyme activity. High temperature can change the shape of enzyme and low temperature can slow down the enzymatic activity. Same is with pH.

(d) - Dengue fever:

Dengue, also known as break-bone fever is ~~an arthro~~ a viral disease. It is caused by a single-stranded RNA virus from the family of Flaviviridae.

The main vector is a female mosquito with black body and white linings. It can be asymptomic in some cases with incubation period.

The common symptoms are;

- High grade fever (continous pyrexia)
- Arthralgia - Pain in joints.
- Severe headache
- Retro-Orbital pain - pain around the eye region
- Nausea or vomiting.
- Diarhea
- In severe cases bleeding can occur along with fever known as DHF

DATE: / /

dengue hemorrhagic fever.
Thrombocytopenia (low platelets) and leukopenia (low white blood cells) are the common findings.

Preventive measure:

As there is no antiviral use for dengue, preventive measures are of significant value.
Prevention should be focused on;

a- Full clothing with each part of body covered except for face and some few others.
b- Elimination of standing water, as its the breeding site of mosquito.
c- Usage of nets and mosquito repellants
d- Community awareness about the disease outbreak, and its effects over society and human beings