GRADE 9 BIOLOGY

UNIT FOUR SUMMARY

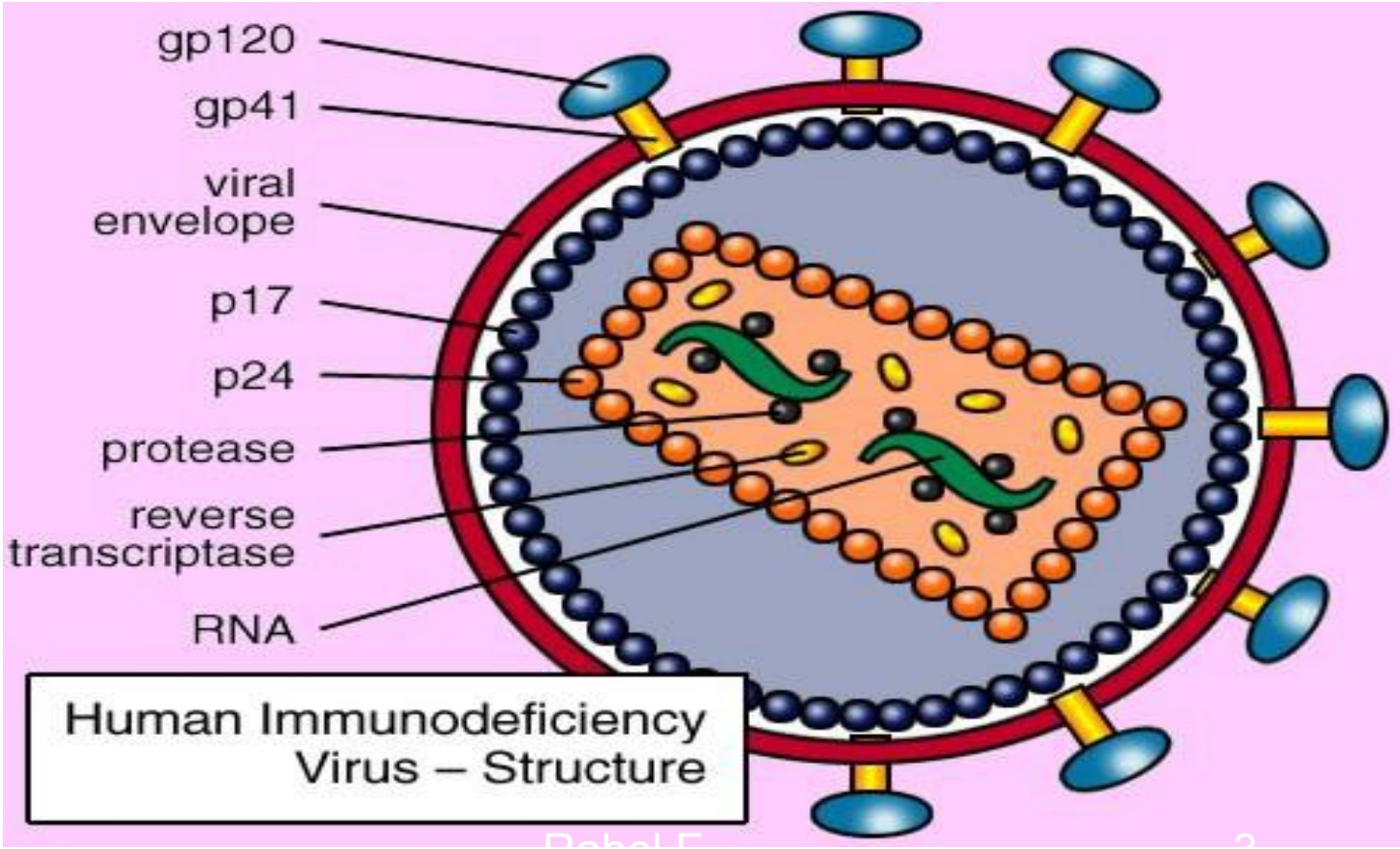
- MICRO ORGANISMS AND DISEASE

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4.3. HIV/AIDS

- **AIDS-Acquired Immune Deficiency Syndrome.**
- **Infection caused by human immunodeficiency virus.**
- **HIV is the VIRUSE that cause AIDS.**


gp120
gp41
viral envelope
p17
p24
protease
reverse transcriptase
RNA
Human Immunodeficiency Virus – Structure

- **HIV /AIDS can be transmitted by**

- **unprotected sexual intercourse.**
- **from mother to child during pregnancy, childbirth or breast feeding.**
- **Contact with infected blood- *transfusion**

  ***sharing sharp materials**

Question

1.What is the difference between HIV and AIDS?

Ans :HIV is the virus and AIDS is the disease caused by HIV.

2.List 3 ways by which HIV transmitted from one person to the other.

Ans:

- **Unprotected sexual intercourse**
- **From mother to child**
- **Blood contact.**

HIV and immune system.

- HIV attack the immune system.
- Two types of white blood cells in the immune system are ;
- T-cells- recognize and attach to a cell carrying a foreign antigen and destroy it.

- **B-cells- recognize foreign antigens and destroy them by producing antibodies.**
- **HIV attacks the T cells of our immune system.**
- **Both cells are used for effective functioning of the immune system.**

Symptoms of HIV



- **Patients often have few symptoms at the beginning but latter on they may get different diseases and die.**

- **Anti retroviral drugs are used to slow down the progress of HIV/AIDS and protect unborn babies from infection but do not cure AIDS.**

AIDS can be prevented by

- -having healthy lifestyle

  ABC rules
- Avoid stigma and discrimination
- Care and support people with HIV/AIDS.

- **Voluntary counseling and testing services are important in educating and informing people about HIV/AIDS.**

- **Developing personal skills like assertiveness, decision making, and problem solving help to prevent HIV/AIDS.**

Review questions

1. **Use the following terms to answer the items a-i.**

Boiling, Autoclaving ,antiseptics ultra high temperature, pasteurization antifungal chemicals ,dry heat disinfection, antibiotics

A. **Objects are sterilized by placing them in boiling water.**

Ans; boiling

B. Sterilizing objects by boiling water at high pressure than the normal

Ans. Autoclaving

C. heating food to kill all the micro organism on it

Ans. Ultra high temperature

D.To treat milk beer and so on

Ans. Pasteurization

- **E. Used to sterilize scientific equipments.**

  Ans; dry heat
- **F. treat drinking water,sinks,toilets germ free**

  Ans;disinfectants
- **G. help to avoid micro organisms from our hand**

  Ans;antiseptics
- **H. used to treat bacterial infections like TB.**

  Ans;antibiotics

2. List 5 diseases caused by

a. bacteria

cholera, typhoid, tuberculosis, syphilis,leporsy

b. virus

ebola,AIDS,COVID-19,hepatities,flu

c. Fungus

ring worm, candidiasis, farmer's lung, Athlets foot,