

VEER KUNWAR SINGH UNIVERSITY - ARA

B.Sc.

ZOOLOGY (HONOURS) -

PART - III

PAPER - VI

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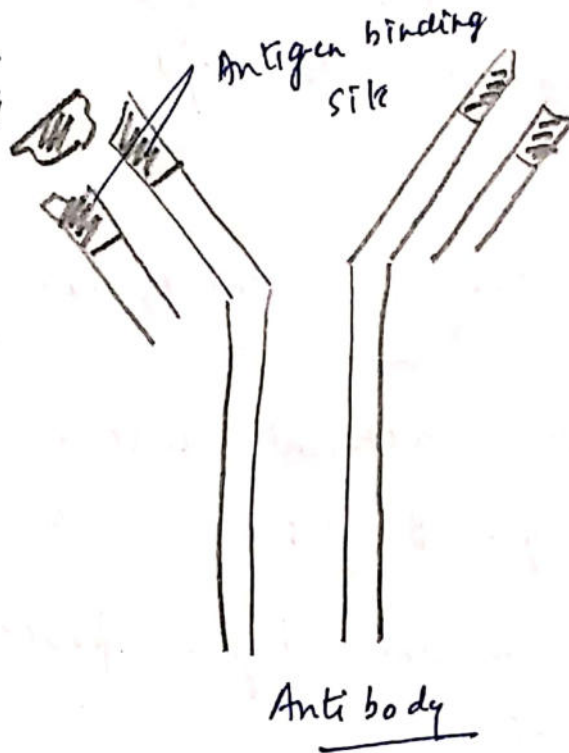
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B.Sc. Zoology (H)

Part-3, Paper-VI



Antibody - It's also known as - Immunoglobulin

(Ig) -

- It's large, Y-shaped protein, produced mainly by - plasma-cell. That is used by the Immune system to - neutralize - pathogens, such as - pathogenic - bacteria and viruses.

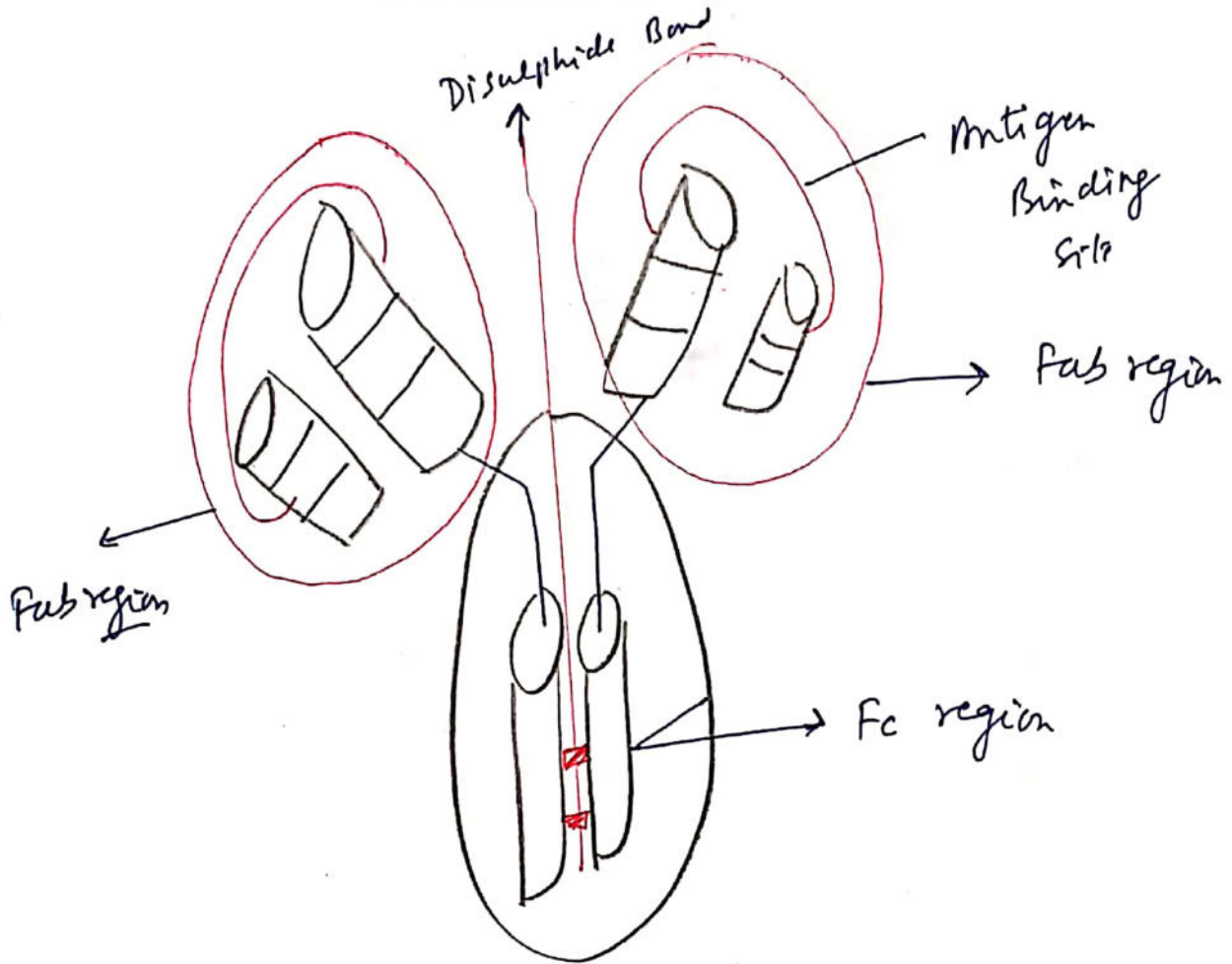
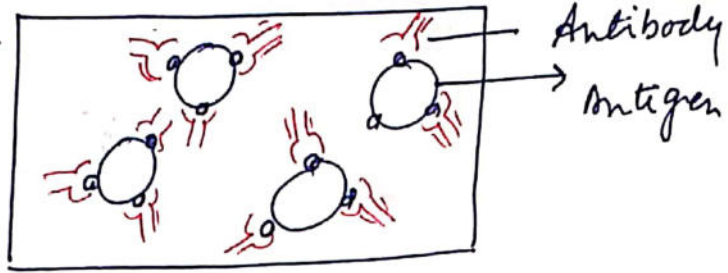
- It recognizes a unique molecule of pathogens, called - antigen via, the fragment antigen - binding (Fab) variable region

- Each tip of the 'Y' of an antibody contains a paratope (Analogous to a lock)

- Each Paratope specific for one particular epitope (analogous to a key)

Antigen- antibody rxn

- A specific chemical interaction
- Produced by - B cells of - WBC
- They combine by a process - called - agglutination
- 1<sup>st</sup> Interaction - was given by - Richard J. Goldberg at the Univ. of - Wisconsin in 1952
- Also known as - Goldberg's theory
- The antigen determinant or epitope is recognized by the paratope
- Antigens are bound to antibodies - through weak - and non-covalent interactions, such as electrostatic interaction, hydrogen bonds, Vander Waals force, and hydrophobic interaction



Next day - Antibody  
mechanism