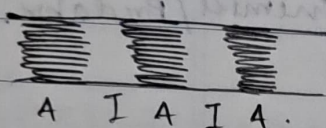
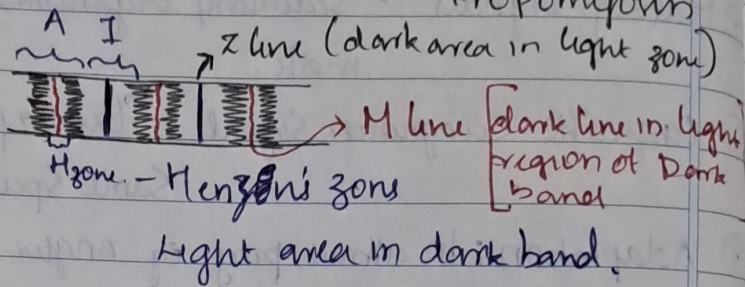
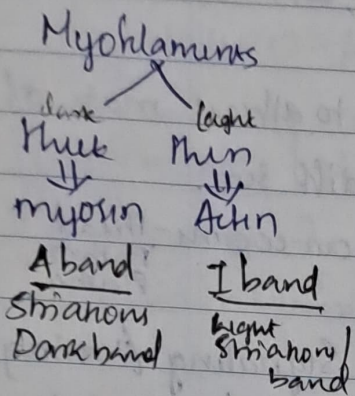


MUSCLE PHYSIOLOGY

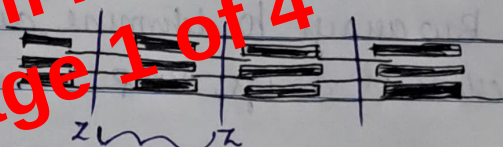
- Striated muscle - Striations of dark and light.
- Striations are due to two proteins.

muscle protein $\left\{ \begin{array}{l} \text{contractile} - \text{Actin and Myosin} \\ \text{Regulatory / non contractile} - \text{tropomyosin} \end{array} \right.$ formed of myofibrils



A - Anisotropic - does not pass light
I - Isotropic - allows light passage

Electron microscope representation



Sarcomere (structural & functional unit)

Biochemistry / Biochemical changes

- 50% of contractile protein of muscle is composed of myosin
- 2 forms of myosin $\left\{ \begin{array}{l} \text{Partial folded form} - \alpha \text{ myosin} \\ \text{fully folded form} - \beta \text{ Myosin} \end{array} \right.$

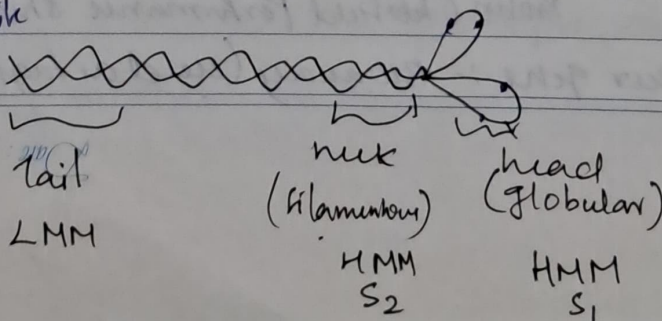
MYOSIN

- Myosin filaments are made up by polymerization of myosin monomers
- Made up of 1- Dipetide, Spirally coiled, 460,000D
- Rod shape with head, neck, tail.

head - 2 binding site

Actin binding site

ATPase binding site (enzyme) site



myosin made by 2 proteins.

LMM HMM

tail

light myosin

heavy myosin