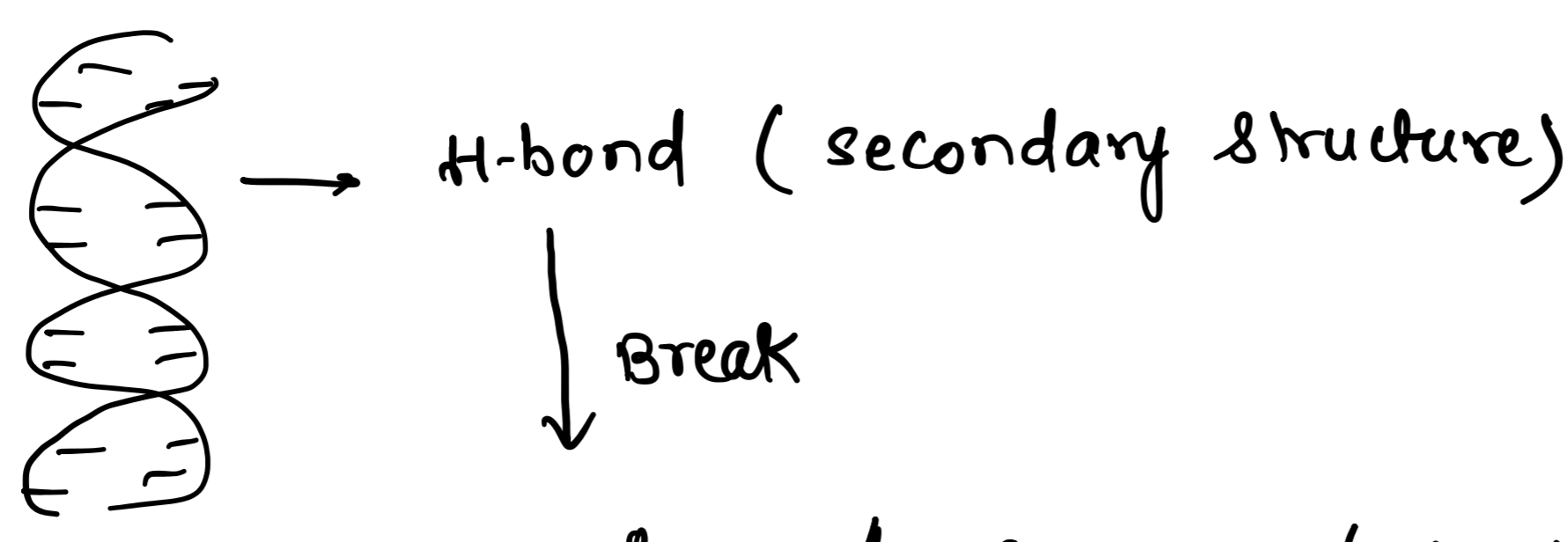
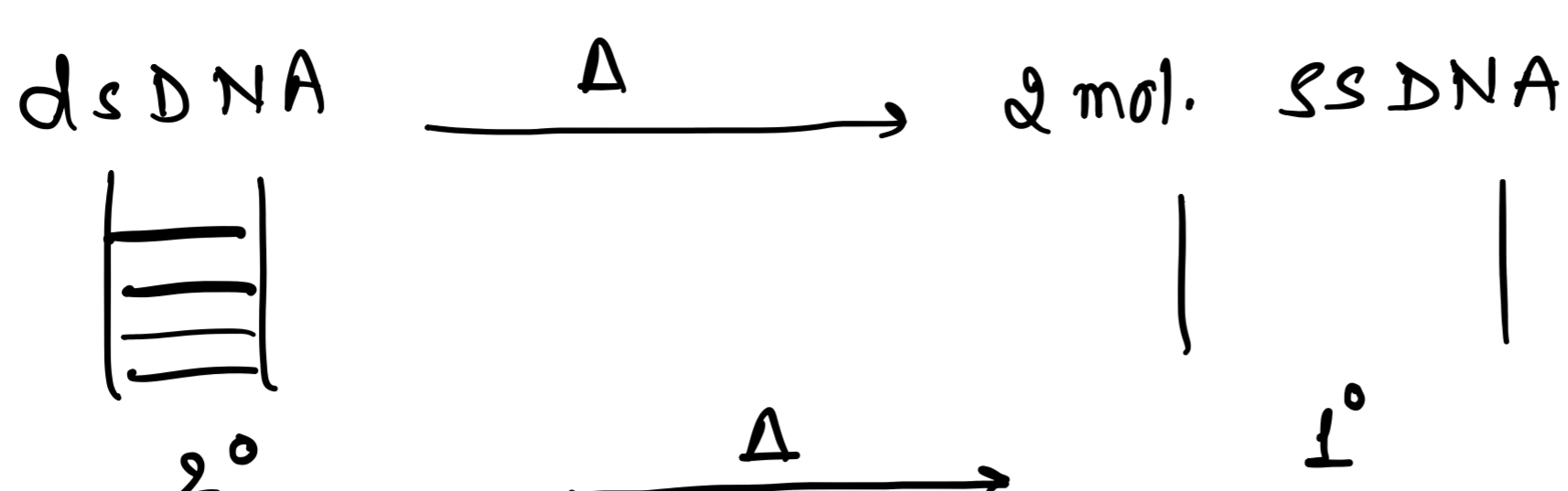


Double stranded DNA \rightarrow B-DNA (Right Handed DNA)



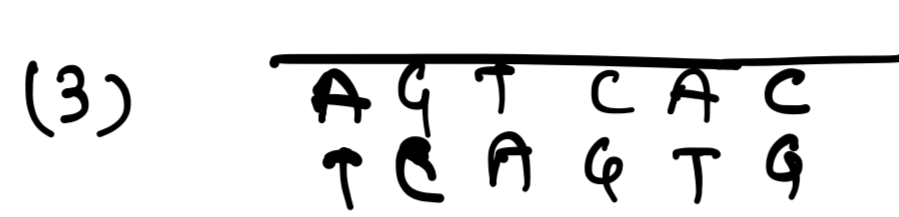
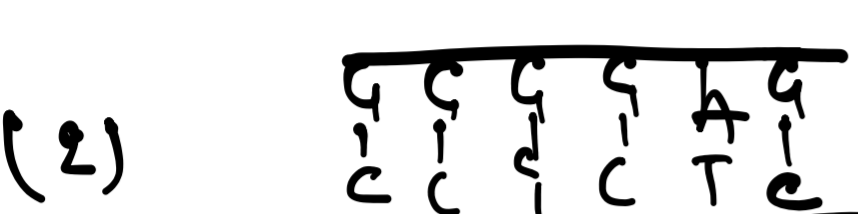
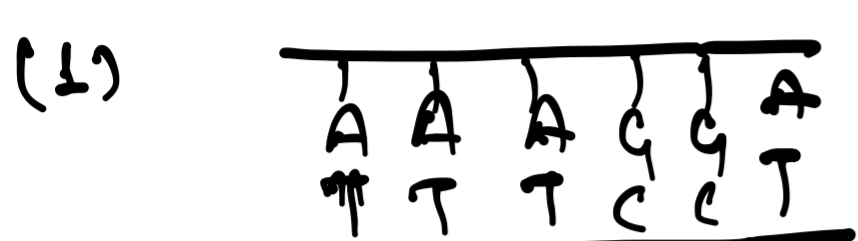
change in pH / High temp / chemicals



* Process is k/a denaturation of DNA or melting of DNA. \rightarrow If temp lower down to 65°C

* $T_m = 82-90^\circ\text{C}$ A=T (low melting area)

(1) $G=C$ (high melting area)



$2 > 3 > 1$

\downarrow
** (Renaturation) or (Annealing)

*Compound \rightarrow "formamide (weaken the strength of H-bond)" \therefore It lowers down the melting temperature.

Hyperchromatic Effect \Rightarrow

* Conjugated double bond in nitrogen bases absorb UV radiation.

* Denatured or separated DNA absorb more energy than intact DNA. This is k/a Hyperchromatic effect.



** This effect is used in knowing whether the DNA is single stranded or double stranded.

** UV radiation has mutagenic effect. ***

** At pH=7 all common nucleotide absorb 260nm 'w' of light

260nm

** on melting viscosity of DNA decreases

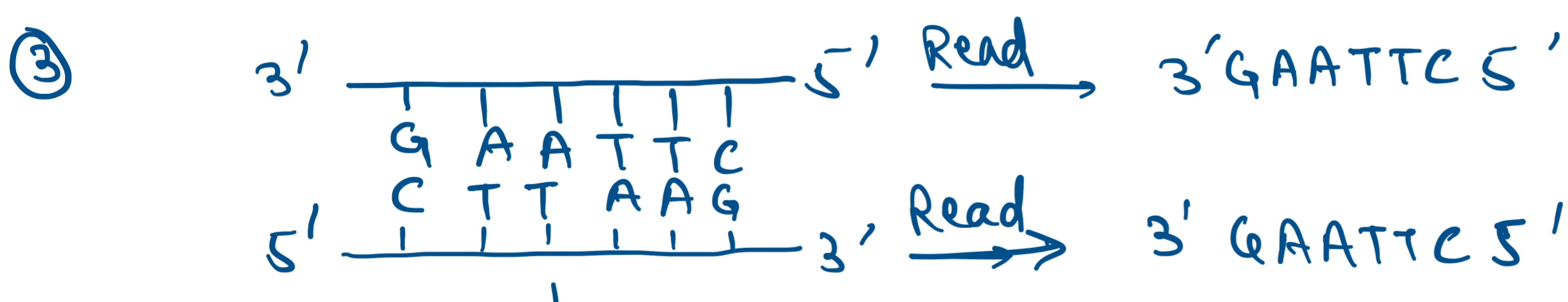


(1) * DNA replication \rightarrow Both the strand act as DNA or duplication template strand

(2) Transcription \rightarrow DNA into RNA

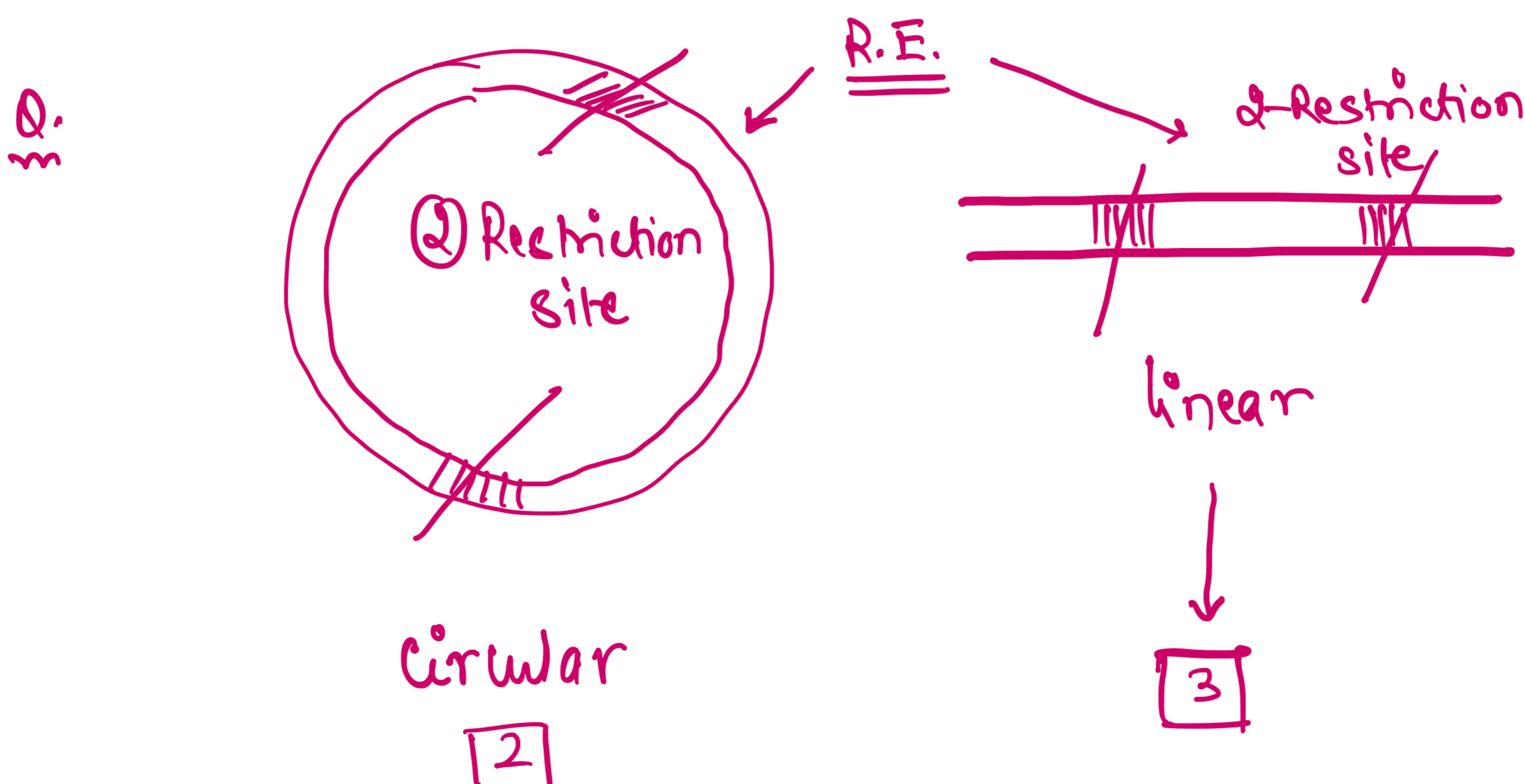
strand of DNA on which RNA is synthesized is k/a Template strand, (-ve) strand or antisense strand or Non-coding strand

Complementary strand is k/a \rightarrow { Non-Template strand
or opposite strand is { Plus (+ve) strand
sense strand
Coding strand



"Palindromic Sequence"

"Restriction Enzyme" \Rightarrow Restriction Endonuclease
** (Molecular scissors)



(4) ds circular \rightarrow { Bacteria
Mitochondria
plastid } Plasmid ds-circular DNA

ds linear DNA \rightarrow * nuclear DNA
** Mycoplasma (pplo)

(5) C-DNA \Rightarrow Copy DNA

