

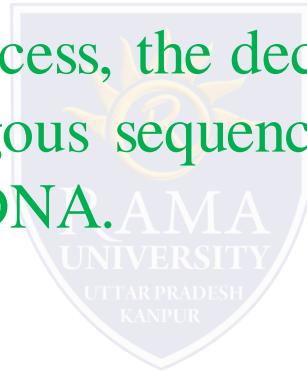


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FACULTY OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

- 3. This mixture is kept in a PCR equipment and is subjected to repeated cycles of DNA denaturation-renaturation-DNA replication.
- 4. During this process, the decaoligonucleotide will pair with the homologous sequence present at different locations in the DNA.
- 5. DNA replication extends the decaoligonucleotide and copies the sequence continuous with the sequence with which the selected oligonucleotide has paired.



- 6. The repeated cycles of denaturation-renaturation-DNA replication will amplify this sequence of DNA.



- 7. Amplification will take place only of those regions of the genome that have the sequence complementary to the decaoligonucleotide at their both ends.



- 8. After several cycles of amplification the DNA is subjected to gel electrophoresis.

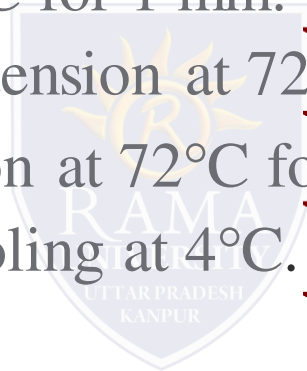
Initial denaturation at 94°C for 10 min.

Denaturation at 94°C for 1 min. ↓
Annealing at 37-45°C for 1 min. ↓
Extension at 72°C for 1 min. ↓

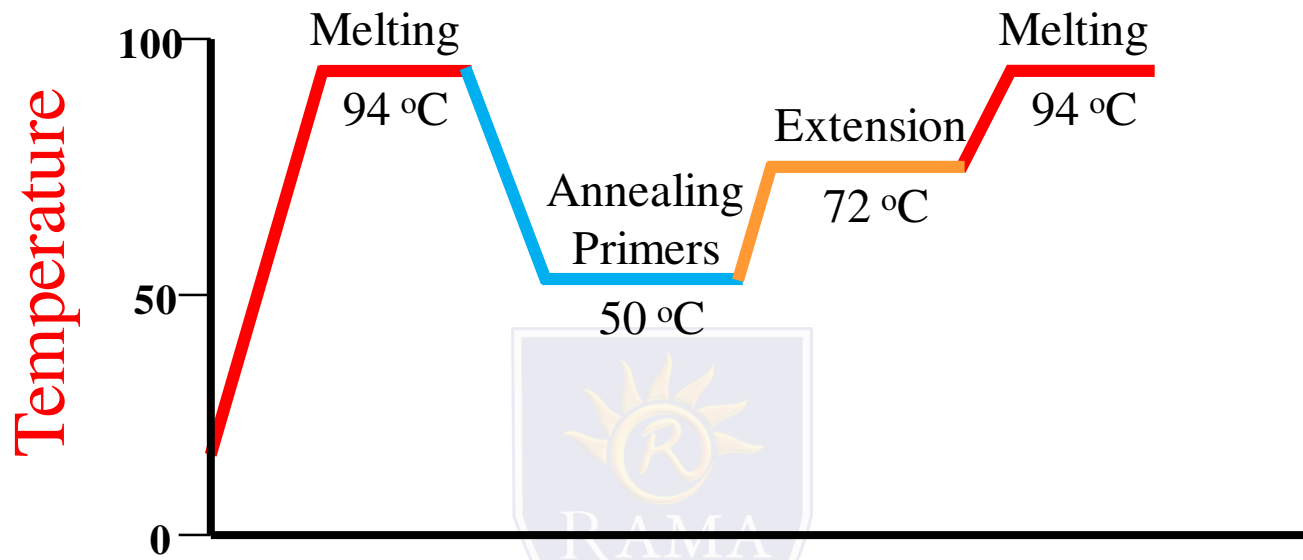
Final extension at 72°C for 10 min. ↓

Cooling at 4°C. ↓

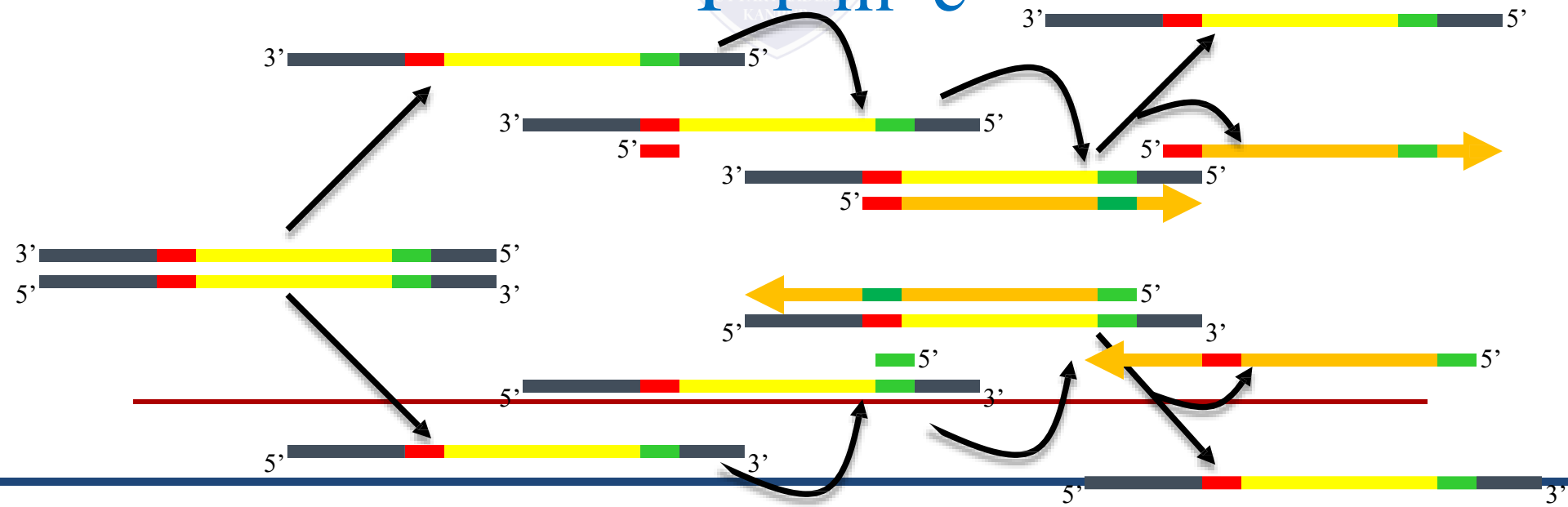
- 9. The amplified DNA will form a distinct band. it is detected by ethidium bromide staining and visible fluorescence's under U.V. light

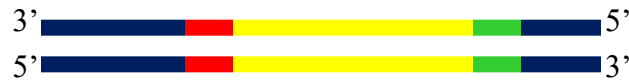
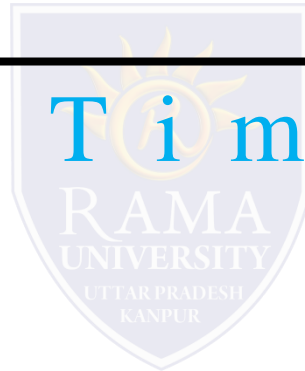
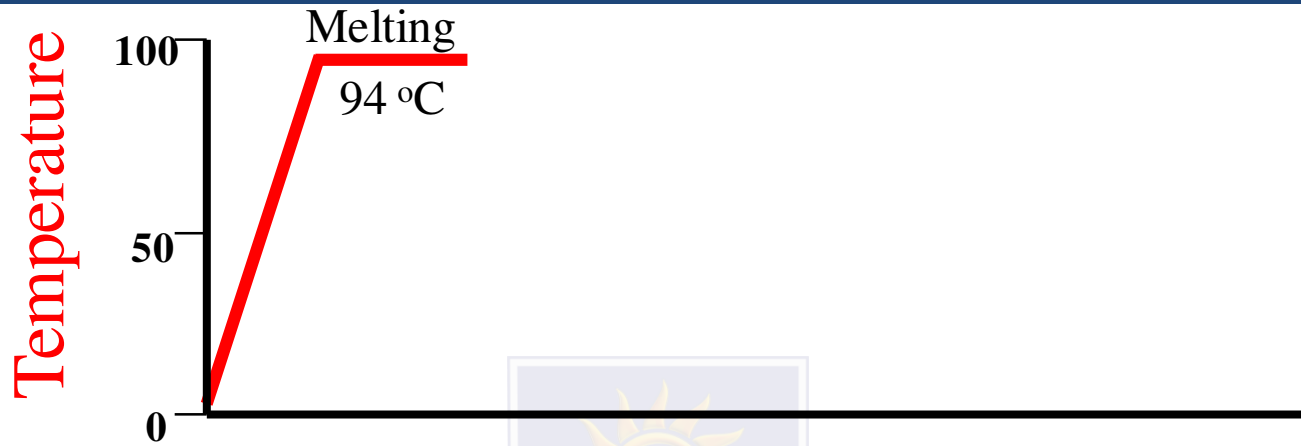


PCR



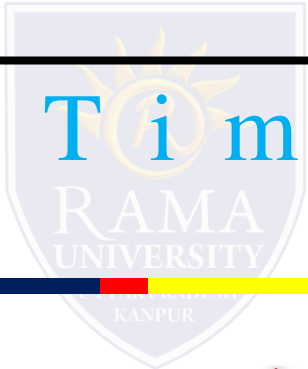
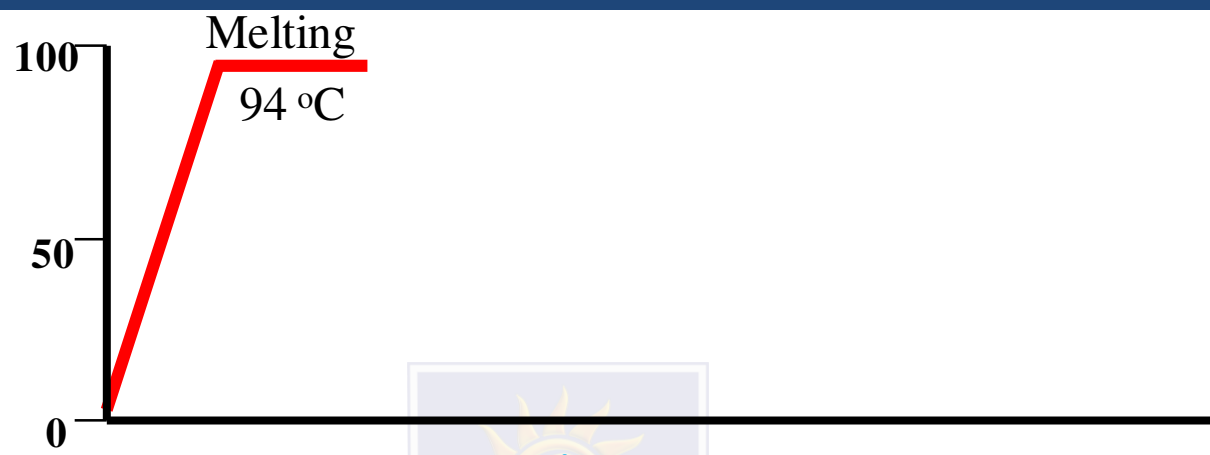
Time



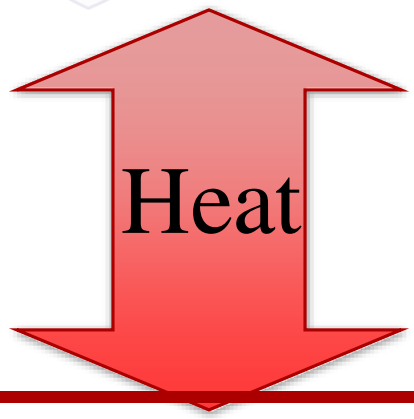
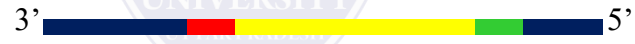


RAPD

Temperature



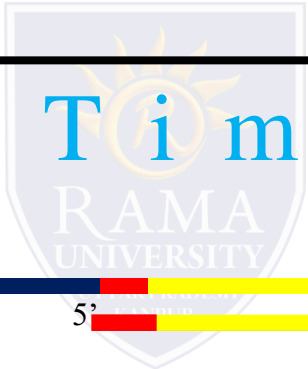
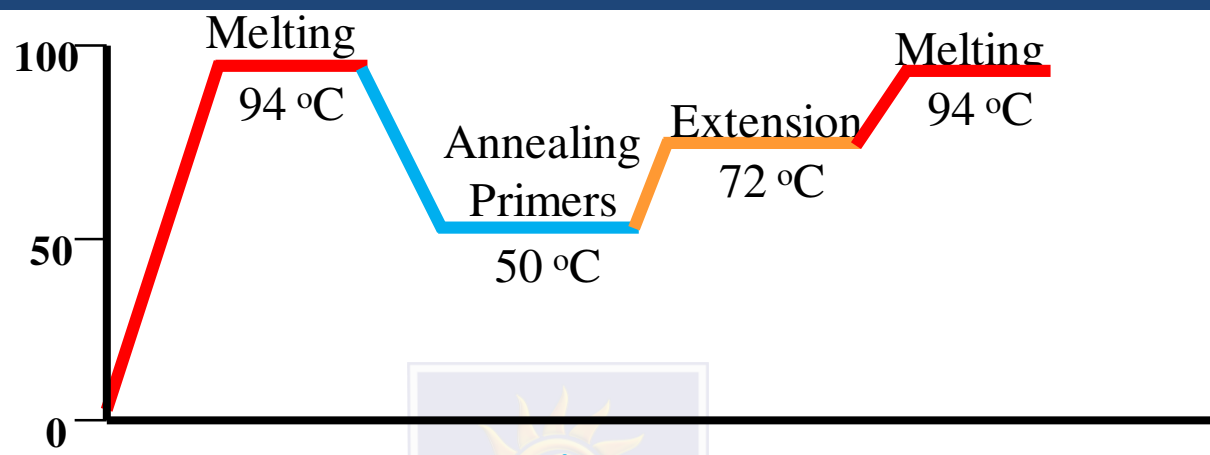
Time



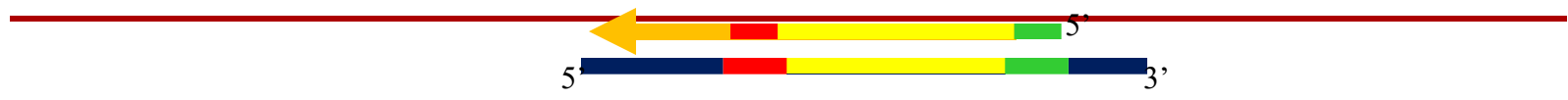
RAPD

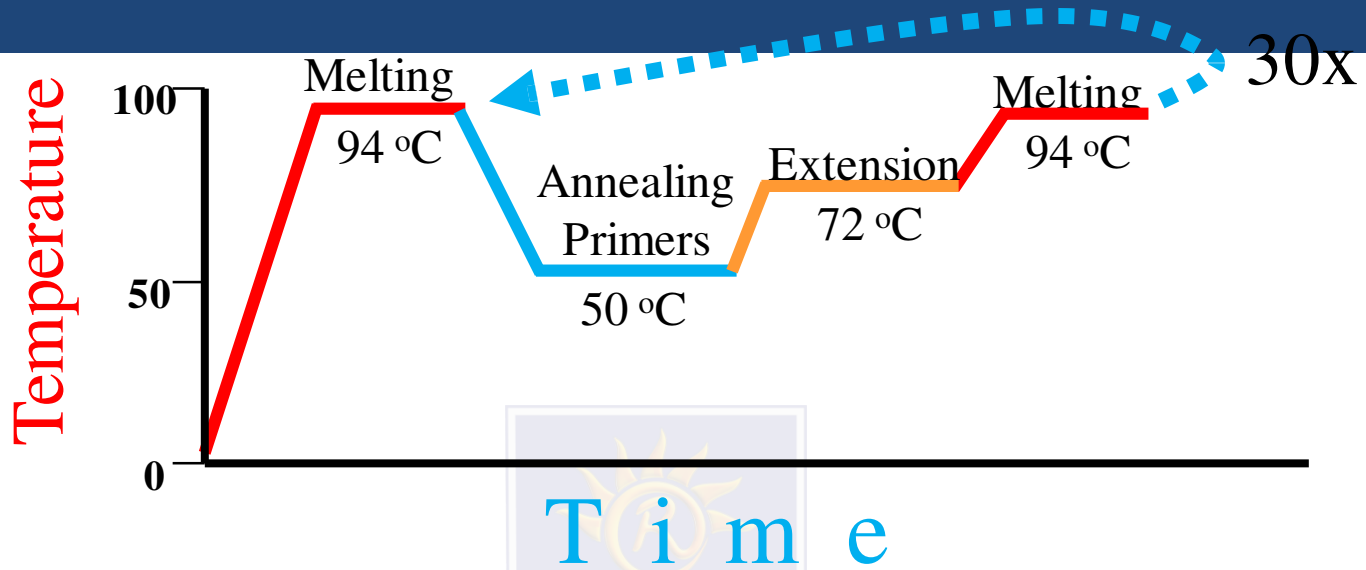


Temperature



RAPD





3' ————— 5'



5' —————>

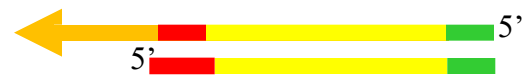
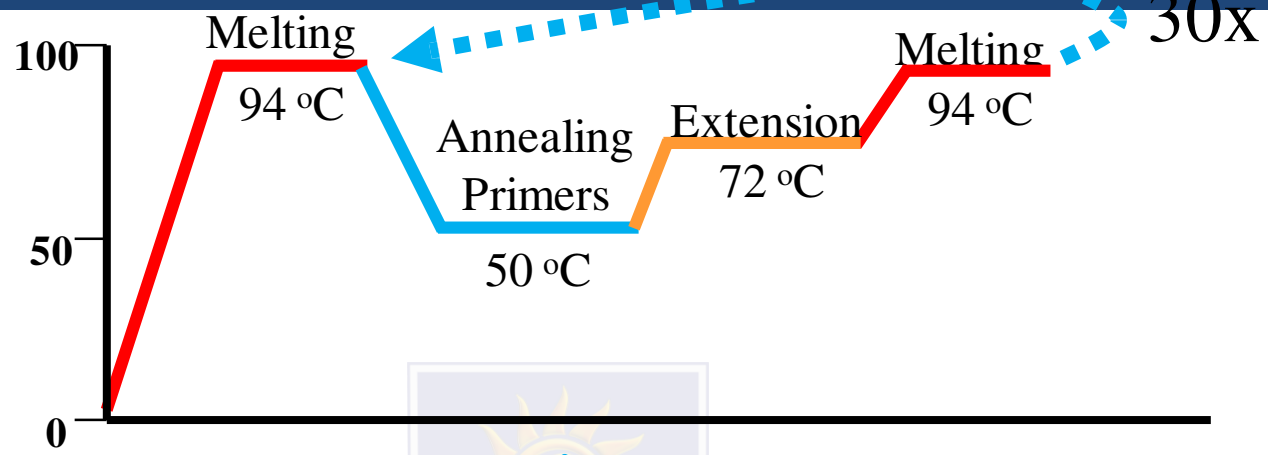
RAPD

←————— 5'



5' ————— 3'

Temperature



RAPD