

# 3.4 Genetic Modification & Biotechnology

## Question Paper

Course	DP IB Biology
Section	3. Genetics
Topic	3.4 Genetic Modification & Biotechnology
Difficulty	Easy

**Time allowed:** 10  
**Score:** /5  
**Percentage:** /100

### Question 1

Which option correctly completes the sentence below?

In gel electrophoresis, DNA moves towards the \_\_\_\_\_.

- A. Cathode
- B. Negatively charged electrode
- C. Anode
- D. Tiny pores in the gel

[1 mark]

### Question 2

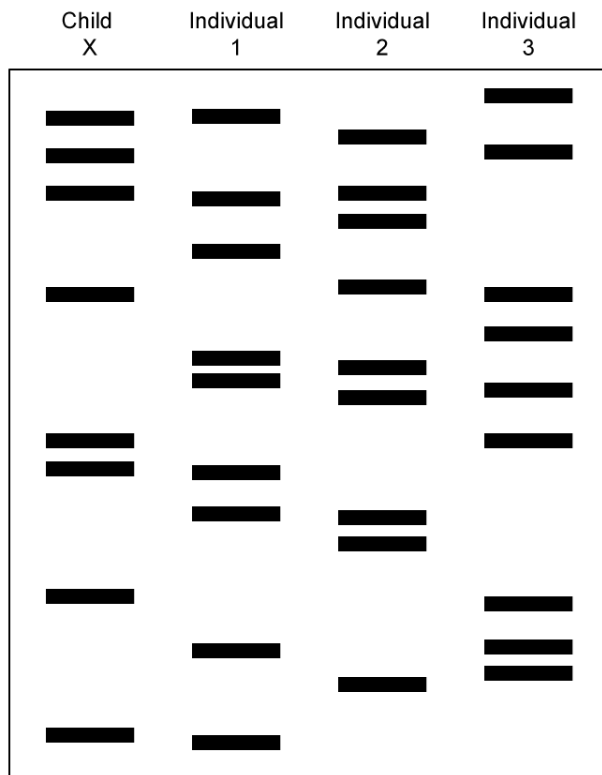
Which of the following processes takes place in a thermal cycler?

- A. Genetic modification
- B. Polymerase chain reaction
- C. Gel electrophoresis
- D. Genetic fingerprinting

[1 mark]

**Question 3**

With reference to the DNA profile shown, which two individuals are the parents of child X?

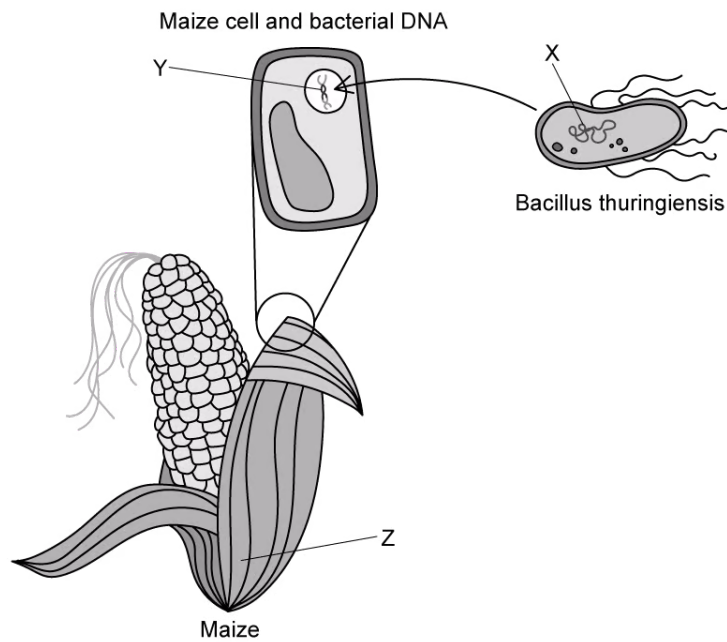


- A. 1 and 3
- B. 1 and 2
- C. 2 and 3
- D. Individual 1 (only one parent is shown)

[1 mark]

### Question 4

Which row correctly labels letters **X**, **Y** and **Z** in the diagram of genetic modification shown?



	<b>X</b>	<b>Y</b>	<b>Z</b>
<b>A</b>	Transgenic organism	Vector	Recombinant DNA
<b>B</b>	Recombinant DNA	Transgenic organism	Vector
<b>C</b>	Recombinant DNA	Vector	Transgenic organism
<b>D</b>	Required gene sequence	Recombinant DNA	Transgenic organism

[1 mark]

### Question 5

Which of the following gives an example of artificial cloning?

- A. Production of runners
- B. Somatic cell transfer
- C. Monozygotic twins
- D. Parthenogenesis

[1 mark]