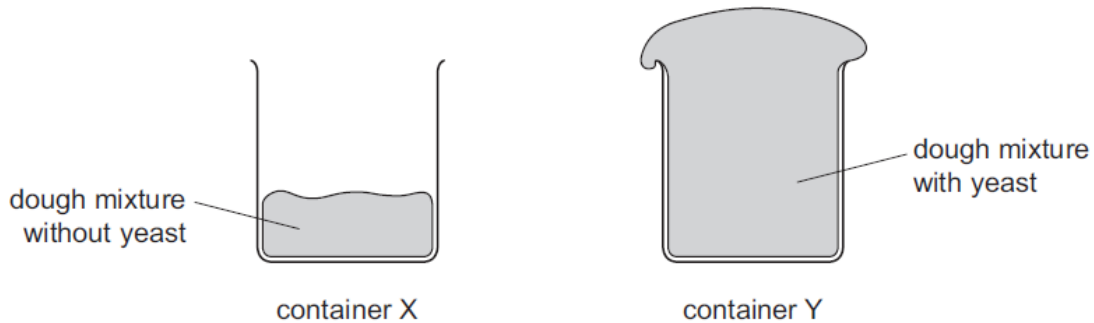


**Biotechnology and genetic modification – 2022 November O Level 5090****1. Nov/2022/Paper\_11, 12/No.29**

Two containers, X and Y, were filled with equal amounts of dough mixture for making bread. The mixture in Y had yeast in it.

The containers were then left in a warm place for two hours. The diagram shows their appearance after this time.



Which substance produced by the yeast causes the difference between the dough in X and Y?

- A alcohol
- B carbon dioxide
- C lactic acid
- D oxygen

**2. Nov/2022/Paper\_11/No.40**

What can be the benefits of genetic engineering of crops?

- 1 crops that can be stored for longer
- 2 crops with a better flavour
- 3 less use of fertilisers
- 4 less use of pesticides

- A 1, 2, 3 and 4
- B 1, 2 and 3 only
- C 1 and 2 only
- D 3 and 4 only

3. Nov/2022/Paper\_12/No.28

Bacteria, fungi and viruses are often grouped together as microorganisms.

Which statement about microorganisms is correct?

- A All types of microorganism are used to produce antibiotics.
- B Bacteria and viruses can only be found inside living cells.
- C Decomposition is brought about by bacteria and fungi only.
- D All microorganisms contain DNA but not in a nucleus.

4. Nov/2022/Paper\_21/No.2d(iii)

(iii) State **two** ways in which yeast can be used by humans.

1 .....

2 .....

[2]