Disease and immunity – 2022 November O Level 5090

1. Nov/2022/Paper_11/No.15

Tissue transplants are normally rejected by the body unless the transplant tissue and the patient are very carefully matched.

Which component of the blood is responsible for the rejection of transplanted tissue?

- A plasma
- **B** platelets
- C red blood cells
- D white blood cells

2. Nov/2022/Paper_11/No.27

Which activity is most likely to cause lung disease?

- A excessive use of antibiotics
- B excessive consumption of alcohol
- C injection of heroin
- D smoking cigarettes

3. Nov/2022/Paper_11/No.31

Which actions can be used to control the malarial pathogen?

	releasing carnivorous fish in ponds and lakes	applying antibiotic creams to the skin	spraying insecticides on buildings	vaccination with the malarial vector
Α	yes	yes	no	no
В	yes	no	yes	no
С	no	yes	no	yes
D	no	no	yes	yes

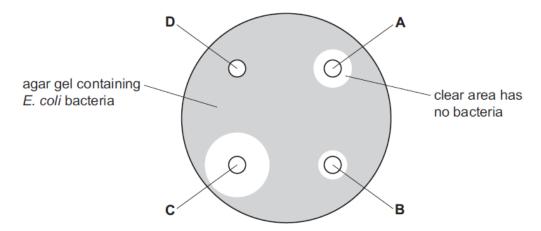
4. Nov/2022/Paper 12/No.27

Four discs, **A**, **B**, **C** and **D**, each containing a different antibiotic, were placed onto agar gel in a Petri dish. The agar gel contained *E. coli* bacteria.

The Petri dish was then sealed and incubated for 24 hours at 35 °C.

The results are shown.

Which antibiotic is most effective?



5. Nov/2022/Paper_22/No.4(c)

(c) It is possible for the valve to be replaced by surgery. The human valve is removed from the patient and can be replaced with a valve containing tissue from another species. This tissue is treated with a chemical to prevent rejection by the human body.

Suggest how the cells of the tissue are modified by the chemical treatment and explain how

this will prevent rejection by the human body.
[4]