

(i) Which type of bacteria was least affected by fucoxanthin?

(1)

- A** *E. coli*
- B** *S. aureus*
- C** *L. monocytogenes*
- D** *P. aeruginosa*

(ii) The table shows the mean and the range of the diameter of the zone of inhibition for each type of bacteria.

Calculate the maximum difference in the diameter of the largest and smallest zones of inhibition.

(1)

Answer ..... mm

(d) Drugs containing these chemicals must be tested for safety before they can be approved and used to treat humans.

Three-phase testing can be used to check for the safety and effectiveness of these chemicals.

Describe the roles of phase I and phase II.

(3)

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**(Total for Question 5 = 9 marks)**