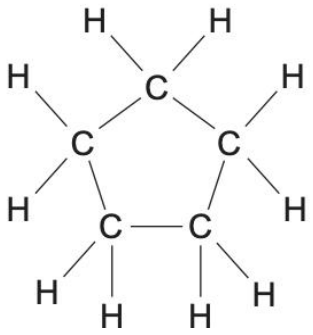
Question 35 **(5 marks)**

There are a number of different isomers with the molecular formula of C_5H_{10}. These include chain isomers and cyclic isomers such as cyclopentane, which is shown here.



(a) Draw **one** chain isomer for C_5H_{10} that satisfies each of the following types. For each isomer, show **all** atoms and **all** bonds. (2 marks)

Type	Diagram
Trans isomer	
Cis isomer	

Chemical tests (adding reagent/s) can be used to distinguish between **chain** and **cyclic** isomers in this question.

(b) In the table below suggest a distinguishing test by stating the reagent/s used and the observations expected for any reaction with each isomer. (3 marks)

Reagent/s		
	Cis/trans chain isomer	**Cyclic isomer**
Observations		