## **1.** June/2022/Paper 12/No.32

The structure of coniine is shown.

coniine CH2CH2CH3

Coniine can be synthesised by reacting ammonia with a dibromo compound, X.

Χ

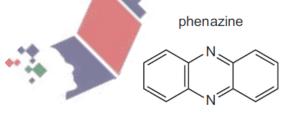
$$X$$
 $NH_3 + C_8H_{16}Br_2 \rightarrow coniine + 2HBr$ 
 $clopentane$ 
 $clopentane$ 

What is compound X?

- A 1,1-dibromo-2-propylcyclopentane
- **B** 1,2-dibromo-2-propylcyclopentane
- $\mathbf{C}$  Br(CH<sub>2</sub>)<sub>3</sub>CHBr(CH<sub>2</sub>)<sub>3</sub>CH<sub>3</sub>
- **D**  $Br(CH_2)_4CHBr(CH_2)_2CH_3$

## 2. June/2022/Paper\_13/No.27

The diagram shows the skeletal formula of phenazine.



What is the empirical formula of phenazine?

- $A C_6H_4N$
- B C<sub>6</sub>H<sub>6</sub>N
- $C C_{12}H_8N_2$
- $D C_{12}H_{12}N_2$