


IIT JAM 2024 Chemistry (CY) Question Paper and Answer Key

Ques 1. Find the value of X



A diagram of a rectangular potential well. The horizontal axis is labeled 'a' and the vertical axis is labeled 'X'. The origin is marked '0'. Below the diagram, the expression $\frac{X h^2}{8 m a^2}$ is written.

$$\frac{X h^2}{8 m a^2}$$

Ans: 5

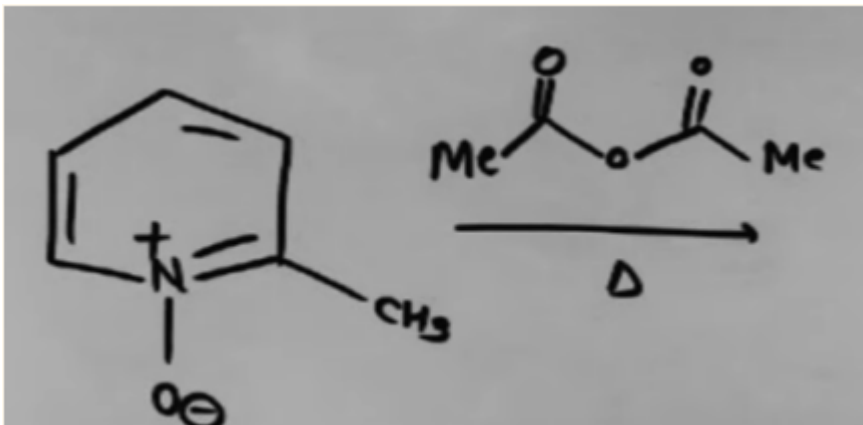
Ques 2.

$$\psi(x) = N [e^{ikx} + e^{-ikx}]$$

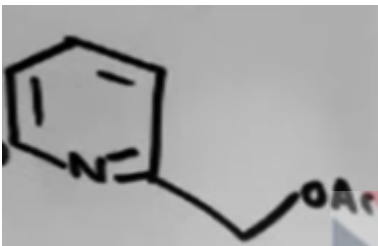
Ans:

$$\psi(x) = N [e^{-ikx} + e^{ikx}]$$

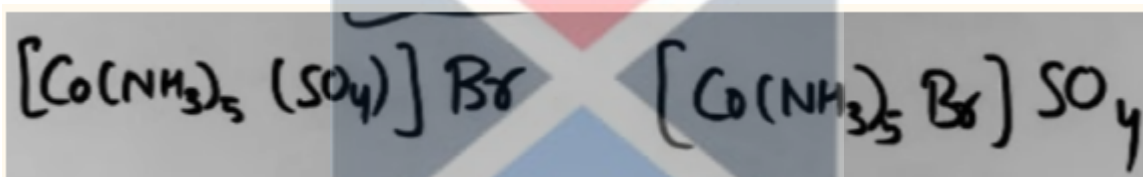
Ques 3.



Ans.



Ques 4.



Ans. Ionisation Isomers

Ques 5.



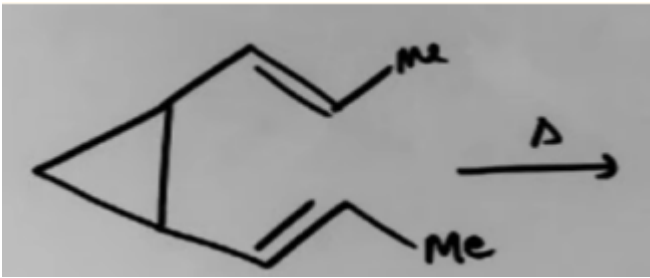
Ans. Linear Structure

Ques 6. Find the maxima and minima of the equation

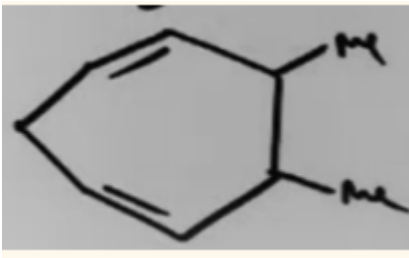
$\psi(x) = e^{-2(x-1)^2}$

Ans. X=1

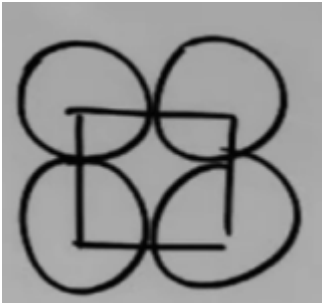
Ques 7.



Ans.



Ques 8. Find the packing efficiency



Ans. 79%

Ques 9.

$$[\alpha]_{\text{pure}} = +73.5$$

Ans.

$$[\alpha]_{\text{soln}} = +66.3$$

Ques 10.

B_2 and $O_2 \rightarrow$ magnetic moment

Ans. para and dia.

