

Previous Year JEE Problems

2) A metal M on heating in nitrogen gas gives Y. Y on treatment with H₂O gives a colourless gas which when passed through CuSO₄ solution gives a blue colour, Y is:

- (1) NH₃
- (2) MgO
- (3) Mg₃N₂
- (4) Mg(NO₃)₂

Solution: Magnesium heated with nitrogen to form magnesium nitride. Magnesium nitride reacts with water to form ammonia and magnesium hydroxide. When ammonia gas is passed through CuSO₄ solution, blue colour is obtained. Hence option (3) is the answer