

**B.Sc DEGREE EXAMINATION, EVEN SEMESTER 2021**  
**I Year I Semester**  
**Allied Chemistry - I**

**Max.marks :25**

Answer any **FIVE** questions ( $5 \times 5 = 25$ ) Marks

1. a) Give one example each of a strong and weak electrolyte. b) calculate the pH of i) 0.01 N HCl ii) 0.1 N NaOH (2+3)
2. a) Mention the advantages of urea over other nitrogen containing fertilisers  
b) Distinguish temporary hardness from permanent hardness of water (3+2)
3. Sketch and explain the hybridisation in methane
4. a) How do you convert furan to tetrahydrofuran b) what is the reaction of pyridine with i) sodamide ii) HCl
5. a) Define quantum yield. b) State the two laws of Photochemistry (1+4)
6. Explain the mechanism of nitration in benzene
7. a) Distinguish Fluorescence from Phosphorescence . b) Mention anytwo photostentisiers (3+2)