



**Subject: practical  
organic Synthesis  
Code no. CHEM 409  
Date: 19/7/ 2020**

**Answer All Questions**

**Fourth year: Chemistry  
Final examination 2<sup>nd</sup> semester  
Time: 1 hrs.  
(90 Marks)**

**Q1) Write briefly assay on the following :**

i- The theoretical principle utilizing in the synthesis of 1-phenyl-3-methyl pyrazolone , write the different steps and mechanistic equations of this preparation in the laboratory

ii) If you provided by 5.2 g of EAA and 4.32g of phenyl hydrazine calculate the yield of the obtained 1-phenyl-3-methyl pyrazolone product

ii) Describe the steps you use to purify the crude product you obtained and describe what do you do if the crystals is not precipitated on cooling .