



**Subject: organic polymer  
practical**

**Code no. CHEM 410**

**Date: 19/7/ 2020**

**Answer All Questions**

**Fourth year: Chemistry  
Final examination 2<sup>nd</sup> semester**

**Time: 3 hrs.**

**(90 Marks)**

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

- 1- How can you prepare resorcinol – formaldehyde resin ,mention all the mechanistic equation and write its classification and its major properties.
- 2- The practical synthesis of urea- formaldehyde polymer .describe the mechanistic equations and all characters .