

**Ramananda College**  
**Bishnupur \* Bankura**  
**Pin – 722122, West Bengal**

**Chemistry Programme (Semester VI) – Practical Exam 2021**  
**DSE – Polymer Chemistry Lab**

**Course Code: UGP/CHEM/601/DSE-1B      Course Title: Polymer Chemistry (P1)**

Full Marks: 15

Time: 2 hr

Answer **any one** question from following. The figures in the parenthesis at right hand side indicate full marks.

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1. (a). Briefly describe the chemical reactions of synthesis of phenol-formaldehyde (p-f) resins - Novolac.  
(b). Mention the name of the chemicals and apparatus required for synthesis of the p-f resins.  
(c). Describe the synthetic procedure for preparation of the p-f resins.  
(d). Show a typical Novolac molecule and calculate its molecular weight.  
(5+3+5+2)
  
2. (a). Briefly describe the principle of determination of molecular weight of polyacrylamide by viscometry method.  
(b). Mention the name of apparatus and chemicals required for this experiment.  
(c). Describe the procedure of this experiment.  
(d). Write the CGS unit of intrinsic viscosity (  $[\eta]$  ) which is determined by viscometry method.  
(5+3+5+2)