

**U.G. 5th Semester Examination - 2021**

**CHEMISTRY**

[HONOURS]

**Discipline Specific Elective (DSE)**

**Course Code : CHEM(H)-P-DSE-1A/PR**

[PRACTICAL]

Full Marks : 20

Time : 2 Hours

*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answer in their own words as far as practicable.*

Answer any **four** questions from the following: 5×4=20

1. What is free radical polymerization? Give one example showing mechanism of free radical polymerization. 1+2

Name initiators generally used for free radical polymerization of vinyl monomers. 2

2. Describe how benzoyl peroxide (BPO) is utilized in various polymerization processes. 2

What are retarders and inhibitors in polymerization reactions? Give examples. 2

How can styrene polymerization be prevented? 1

3. How formaldehyde resins are prepared? 2

Describe the process of estimation of the amount of HCHO in a given solution by sodium sulphite method. 3

4. Describe how molecular weight of a polymer solution is determined using viscometry method. 3

What do you mean by number average and weight average molecular weight? 2

5. How Nylon 66 can be synthesized? What type of reaction is it? 2+1

How it differs from addition polymerization reactions? 2

[Turn over]