

is required to attempt three questions one from each unit. Each question is of 8 marks (400 words).

C

145

**M.Sc. (Applied Chemistry) (Semester IV)  
EXAMINATION, 2017**

Paper-M4AC16-ET-21A

**POLYMER CHEMISTRY-I**

Time allowed: Three hours

Maximum marks : 40

*Note : The question paper is divided into three parts, Part-A, B and C.*

*Part-A : (8 marks) is compulsory and contains 8 questions (20 words each) Each question is of one mark.*

*Part-B : (8 marks) is compulsory and contains four questions. Candidate is required to attempt all four questions. Each question is of two marks (50 words each).*

*Part-C : (24 marks) contains six questions two from each unit. Candidate*

**Part-A (Compulsory)**

- |  |   |
|--|---|
| 1. Define foaming.   | 1 |
| 2. Give examples of conducting polymers.   | 1 |
| 3. What is blow moulding ?   | 1 |
| 4. What do you mean by number average molecular weight and weight average molecular weight ? | 1 |
| 5. Define polydispersity.  | 1 |
| 6. Give preparation of any one polyamide polymer.  | 1 |
| 7. What is abrasion resistance ?   | 1 |
| 8. What are fire retarding polymers ?  | 1 |

Part-B (Compulsory)

<https://universitynews.in/>

16. Describe the spectroscopic methods for the analysis of polymers. 8

9. Describe the calendaring processing technique. 2

10. Describe the End-group method. 2

11. Write note on silicone polymers. 2

12. What is reinforcement? Describe the fillers used. 2

Unit-III

17. Write preparation, properties and uses of polyvinyl chloride and polyester polymer. 8

18. Write notes on the following :

(i) Liquid crystal polymers

(ii) Biomedical polymers

4+4

Part-C

Unit-I

13. Write short notes on the following :

(i) Injection moulding and extrusion moulding

(ii) Crystal structure of polymer 4+4

14. Describe the various processes of fibre spinning. 8

Unit-II

15. Give a brief account of measurement of molecular weight by viscosity and osmotic method. 8