Roll No. | | | | | | | | | | |

B.E / B.Tech (Full-Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2014

B.E. PRINTING
Semester II

CY8203 CHEMISTRY FOR PRINTING TECHNOLOGY
(Regulation 2012)

Time: 3 Hours | Answer ALL Questions | Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. Define caustic embrittlement with its significance
2. What are the constituents of paint?
3. Define aniline point of a lubricant
4. Write the preparation and uses of urea formaldehyde adhesive
5. Write the classification of polymers with suitable example
6. Mention any two properties and uses of polycarbonate
7. Define the term alloy along with its significance
8. How metallic powders are prepared by electrolytic process and decomposition
9. Write the principle involved in chromatography
10. Write any two uses of STM and XRD

Part – B (5 x 16 = 80 marks)

11. With a neat diagram discuss the water softening process by ion-exchange process and Reverse Osmosis process in detail (16)

12. a) (ii) What are phenolic adhesives? Distinguish the adhesive action between novalac and resole adhesives (8)
(ii) Write informative notes on PU and epoxy adhesives (8)

(OR)

b) (i) Discuss the structure and lubricating action of graphite and molybdenum disulphide lubricants (8)
(ii) Write informative notes on aniline point, cloud point and pour point (8)

13. a) Differentiate between commodity and engineering plastics. Discuss any four of their preparation, properties and uses in detail (16)

(OR)

b) (i) Write the definition, constitution, classification and applications of composite materials (8)

(ii)What are fiber reinforced composites? Discuss the preparation and properties of reinforced composites (8)

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14. a) (i) Describe the process of compacting and sintering along with their uses (8)

(ii) Explain any two methods of preparation and uses of ferrous alloys (8)

(OR)

b) What is heat treatment of steel? Explain the eight different types of heat treatment processes (16)

15. a) What are thermal methods of analysis? With a neat diagram, explain the principle, working and application of TGA, DSC and DTA (16)

(OR)

b) Write informative notes on **any two** of the following

(i) X-Ray diffraction analysis (8)

(ii) Atomic Force Microscopy (8)

(iii) Scanning Electron Microscopy (8)