11-5-19

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

[F.T]

B.E /B.Tech/B.Arch END SEMESTER EXAMINATIONS, APR / MAY 2019

PRINTING TECHNOLOGY

II Semester

CY 8203 CHEMISTRY FOR PRINTING TECHNOLOGY

(Regulation 2012)

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

PART-A (10 x 2 = 20 Marks)

1. What is the significance of COD and BOD as a water quality parameter?
2. List any four constituent of paints with its function.
3. What makes graphite and molybdenum sulphide a solid lubricant?
4. How does an adhesive action take place?
5. What are the uses of polypropylene as a commodity?
6. What are fiber reinforced plastics? Give two examples.
7. What is meant by a green compact in powder metallurgy?
8. Give two examples each of ferrous and non ferrous alloys with its use.
9. What is population explosion?
10. Write Braggs equation with all the terms defined.

Part – B (5 x 16 = 80 marks)

(Question No.11 is Compulsory)

11. (i) With neat diagram, elaborate on zeolite and ion exchange demineralization process for removing hardness of water. 8 marks

(ii) Explain the different types of corrosion and its control measures. 8 marks

12. a) Describe any four important properties of lubricants for an effective lubrication. 16 marks

OR

b) Elaborate on the physical and chemical factors influencing adhesive action. Also explain the bonding process of adhesives with examples. 16 marks

13. a) Describe the preparation, properties and uses of speciality polymers polyether ether ketone, and Polyether sulfone. 16marks

OR

b) Elaborate on the classification and applications of composite materials. 16 marks

14. a) Why is heat treatment done for alloys? Explain the different heat treatment methods employed for steel. **16marks**

OR

b) What is powder metallurgy? Explain all the steps involved in the making of porous metal filters. **16marks**

15. a) Discuss the principle, instrumentation (block diagram) and applications of Atomic Force Microscopy (AFM). **16marks**

OR

b) Discuss the principle, instrumentation (block diagram) and applications of Differential Scanning Calorimetry (DSC) and Thermo-gravimetric analysis (TGA). **16marks**