

PRINTING TECHNOLOGY ALL SEMESTERS.

APRIL/MAY - 2014

Roll.No										
---------	--	--	--	--	--	--	--	--	--	--

B.E / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2012

PRINTING TECHNOLOGY BRANCH

SECOND SEMESTER

CY 9162 – CHEMISTRY FOR PRINTING TECHNOLOGY

(REGULATIONS 2008)

Time: 3 Hrs

Max Mark: 100

Answer ALL Questions

Part – A (10 x 2 = 20 Marks)

1. Calgon treatment prevents scale formation in boilers. Give reason.
2. How does sodium sulphate added to boiler-feed water control caustic embrittlement?
3. What is a thermocole?
4. Define Aniline point.
5. State Stark – Einstein law of photochemical equivalence.
6. What is meant by photosensitization?
7. Give any two important needs for alloying steel.
8. What are fuse alloys? Give an example.
9. Define cetane number.
10. Distinguish between gross and net calorific value.

Part – B (5 x 16 = 80 Marks)

- 11.a(i) What are ion-exchange resins? Discuss their application in water softening. (8 Marks)
- a(ii) Explain the desalination of water by reverse osmosis method.(8 Marks)
- 12.a(i) Differentiate between thermoplastics and thermosetting plastics. Give any one example for each type.(8 Marks)
- a(ii) Explain the process of vulcanization of rubber.(8 Marks)

Or

- 12.b(i) Describe the method of preparation, properties and application of PMMA and TEFLON.(8 Marks)
- b(ii) Discuss the various physical factors influencing the adhesive action.(8 Marks)
- 13.a(i) Explain briefly fluorescence and phosphorescence.(8 Marks)

a(ii) Write a short note on Fricke dosimeter.(8 Marks)

Or

13.b(i) Discuss the photochemical decomposition of hydrogen-bromine reaction.
(8 Marks)

b(ii) Write a short note on chemiluminescence. (8 Marks)

14.a(i) Write a note on heat treatment of steels.(8 Marks)

a(ii) Discuss the composition, properties and uses of non-ferrous alloys.
(8 Marks)

Or

14.b(i) How is metal powder prepared? Describe any two applications of powder metallurgy.(8 Marks)

b(ii) What is meant by compacting in powder metallurgy? Discuss any two methods of compacting.(8 Marks)

15.a(i) Explain proximate analysis of coal. How is it carried out? What is its significance? (8 Marks)

a(ii) Describe the manufacture of metallurgical coke by Otto Hoffman's oven method.(8 Marks)

Or

15.b(i) With a neat diagram explain the analysis of flue gas by Orsat apparatus and mention its significance.(8 Marks)

b(ii) Describe the manufacture of gasoline by Fischer-Tropsch method.(8 Marks)
