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B.E./ B.Tech.(Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV/DEC 2011

(Electrical and Electronics Engineering Branch)

SECOND SEMESTER

CY 183 –CHEMISTRY II

(REGULATIONS 2004)

Time: 3 hours

Max. Marks: 100

Instructions: 1.....

2.....

Answer ALL Questions

Part - A (10 X 2 = 20 Marks)

1. What is a photosensitized reaction?
2. State Grothus Dropper law
3. What is meant by polymer alloy? Give an example.
4. Define: Optical fibre
5. Write note on soil corrosion
6. Write note on corrosion inhibitors.
7. Mention any two rechargeable cells.
8. Distinguish between nuclear fission and nuclear fusion
9. What is a Hoopé's process?
10. What is the principle of electro refining?

Part-B (5 x 16 = 80)

- 11 i) Write in detail about the mechanism of photochemical decomposition of HI and HBr (8)
ii) Write in detail about photochemical reactions (8)
- 12 a) i) Write preparation, properties and uses of bakelite. (8)
ii) Write in detail about chemical structure and electronic behavior of conducting polymer (8)

(OR)

- b) i) What is meant by vulcanization? Explain the process of vulcanization of rubber (8)
- ii) What are the characteristics and advantages of optical fibre? (8)

13 a) i) Give a detailed account on the various factors influencing electrochemical corrosion (8)

ii) Explain the mechanism of chemical corrosion (8)
(OR)

b) i) What is a paint? What are the constituents of paints? Discuss their functions? (8)

ii) Write in detail about the stress corrosion and pitting corrosion. (8)

14 a) i) Explain the construction and working of lead acid storage cell. (8)

ii) Explain the construction and working of dry cell. (8)

(OR)

b) i) Describe the various components of a nuclear reactor and their functions (8)

ii) Discuss the principle involved in solar cells (8)

15) a) i) What is electro winning process? How aluminum is extracted using Hoop's process? (8)

ii) Write in detail about electrochemical machining? What are its advantages? (8)

(OR)

b) i) Explain the theory electron transfer in homogeneous systems. (8)

ii) Write in detail about the electrolytic refining of copper? (8)
