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Name:.....

Reg.No:.....

FOURTH SEMESTER B-TECH DEGREE EXAMINATION, MAY, 2012

CH 09 404 PHYSICAL AND ANALYTICAL CHEMISTRY

Time: 3 HOURS

Max. Marks: 70

PART - A (Answer all questions) (5 x 2 = 10 marks)

1. What is catalytic poisons?
2. Brief about colloids.
3. Write the components of UV-visible spectroscopy.
4. Define chromatography.
5. What is photochemistry?

PART - B (Answer any four questions) (4 x 5 = 20 marks)

6. Explain the criteria of catalysis
7. What is supported catalysis? Explain.
8. Write a note on polarization.
9. What is thermogravimetric analysis? Explain.
10. Write the principle of paper chromatography.
11. What is phosphorescence? Explain briefly.

PART - C (Answer all questions) (4 x 10 = 40 marks)

12. a. Explain the mechanism of acid-base catalysis.

Or

- b. Discuss in brief about the classification and preparation of colloids.

13. a. Write a detailed note on potentiometric titrations.

Or

- b. Explain the principle and instrumentation of mass spectroscopy.

14. a. Explain the principle and instrumentation of HPLC.

Or

- b. Explain the applications of various chromatography with examples.

15. a. Write a short note on i) electromagnetic radiation ii) energy of radiation
iii) light adsorption.

Or

- b) Write a short note on i) sonochemistry ii) sonoluminescence.