## College of Engineering, Pune Shivajinagar

## (MT9003) – Modern Chemical Analysis Methods

**End Semester Exam** 

Year: T.Y.B-Tech Academic Year: 2013-14 Duration: 1.5 Hours Branch: Metallurgy Date: 13<sup>th</sup> November 2013

Max Marks: 60

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- 1. All questions are compulsory.
- 2. Marks given to the right side indicate full marks.
- Q.1. Differentiate between Chemical methods and Instrumental methods. [4] Q.2. Explain following terms: [4] a) Chopper in AAS b) High voltage supply in VES Q.3. Give different criteria for selection of particular method for particular analysis [3] Q.5. Give applications of Gas Chromatography [4] Q.6. With help of diagram explain instrumentation of ICP-AES [4] Q.7. What are different X-Ray techniques? Brief about each on following points [6] Principle Method **Applications** Q.8. Write note on - X -Ray production/ source [5]