Code No: R05411003 **R05** **Set No. 2**

IV B.Tech I Semester Examinations,NOVEMBER 2010
ANALYTICAL INSTRUMENTATION
Electronics And Instrumentation Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Write short notes on:
   (a) Resonance conditions in NMR.
   (b) NMR absorption spectra.
   (c) Radio- frequency transmitter and receiver. [3+3+10]
2. With neat block diagram explain any one type of Sodium Analyzer. [16]
3. Give in detail the classifications of Chromatography. Briefly explain Liquid Chromatography. [16]
4. (a) Discuss the Sampling System for Paramagnetic Analyzers.
   (b) Explain the method for Oxygen analysis based on Nernst Equation. [8+8]
5. (a) Explain in detail with necessary diagram the Echellette grating.
   (b) Write short notes on holographic gratings. [8+8]
6. With suitable figure present the relative Thermal Conductivity of different gases and analyze any one gas with suitable technique. [16]
7. Explain in detail the construction and working of a GM tube. [16]
8. Discuss the principle of operation of the different modes in atomic absorption spectrophotometers. [16]

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Code No: R05411003 **R05** **Set No. 4**

IV B.Tech I Semester Examinations,NOVEMBER 2010
ANALYTICAL INSTRUMENTATION
Electronics And Instrumentation Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Give in detail the classifications of Chromatography. Briefly explain Liquid Chromatography. [16]
2. Discuss the principle of operation of the different modes in atomic absorption spectrophotometers. [16]
3. Explain in detail the construction and working of a GM tube. [16]
4. With suitable figure present the relative Thermal Conductivity of different gases and analyze any one gas with suitable technique. [16]
5. (a) Explain in detail with necessary diagram the Echellette grating.
   (b) Write short notes on holographic gratings. [8+8]
6. (a) Discuss the Sampling System for Paramagnetic Analyzers.
   (b) Explain the method for Oxygen analysis based on Nernst Equation. [8+8]
7. Write short notes on:
   (a) Resonance conditions in NMR.
   (b) NMR absorption spectra.
   (c) Radio- frequency transmitter and receiver. [3+3+10]
8. With neat block diagram explain any one type of Sodium Analyzer. [16]

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Code No: R05411003 **R05** **Set No. 1**

IV B.Tech I Semester Examinations,NOVEMBER 2010
ANALYTICAL INSTRUMENTATION
Electronics And Instrumentation Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. With neat block diagram explain any one type of Sodium Analyzer. [16]
2. (a) Explain in detail with necessary diagram the Echellette grating.
   (b) Write short notes on holographic gratings. [8+8]
3. Explain in detail the construction and working of a GM tube. [16]
4. Discuss the principle of operation of the different modes in atomic absorption spectrophotometers. [16]
5. With suitable figure present the relative Thermal Conductivity of different gases and analyze any one gas with suitable technique. [16]
6. Give in detail the classifications of Chromatography. Briefly explain Liquid Chromatography. [16]
7. Write short notes on:
   (a) Resonance conditions in NMR.
   (b) NMR absorption spectra.
   (c) Radio- frequency transmitter and receiver. [3+3+10]
8. (a) Discuss the Sampling System for Paramagnetic Analyzers.
   (b) Explain the method for Oxygen analysis based on Nernst Equation. [8+8]

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Code No: R05411003 **R05** **Set No. 3**

IV B.Tech I Semester Examinations,NOVEMBER 2010
ANALYTICAL INSTRUMENTATION
Electronics And Instrumentation Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Discuss the Sampling System for Paramagnetic Analyzers.
   (b) Explain the method for Oxygen analysis based on Nernst Equation. [8+8]
2. Discuss the principle of operation of the different modes in atomic absorption spectrophotometers. [16]
3. With neat block diagram explain any one type of Sodium Analyzer. [16]
4. With suitable figure present the relative Thermal Conductivity of different gases and analyze any one gas with suitable technique. [16]
5. Give in detail the classifications of Chromatography. Briefly explain Liquid Chromatography. [16]
6. Write short notes on:
   (a) Resonance conditions in NMR.
   (b) NMR absorption spectra.
   (c) Radio- frequency transmitter and receiver. [3+3+10]
7. (a) Explain in detail with necessary diagram the Echellette grating.
   (b) Write short notes on holographic gratings. [8+8]
8. Explain in detail the construction and working of a GM tube. [16]

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