

Code.No: R05010801

R05

SET-1

I - B.TECH EXAMINATIONS, DECEMBER - 2010
ANALYTICAL CHEMISTRY
(CHEMICAL ENGINEERING)

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

Answer any FIVE questions
All questions carry equal marks

- - -

- 1.a) Write a short notes on digestion of precipitate.
- b) Describe a method for the determination of Iron by gravimetric analysis. [8+8]

- 2.a) Write a short notes on redox indicators.
- b) Explain the principle & procedure for the estimation brass solder by volumetric titration. [8+8]

- 3.a) Explain the method for estimation of Iron in alloy by using uv-visible spectroscopy.
- b) Write a brief account on types of transitions in organic molecules. [8+8]

- 4.a) Explain various components of IR with the help of neat diagram.
- b) Write the important applications of IR spectroscopy. [8+8]

- 5.a) Explain the Analytical applications of potentiometry.
- b) Define the following:
 - i) Conductivity
 - ii) Specific Conductivity
 - iii) p^H . [8+8]

- 6.a) What is the principle involved in amperometric titrations explain with example?
- b) Write short notes on:
 - i) Controlled current electrolysis
 - ii) Controlled electrode potential electrolysis. [8+8]

- 7.a) How technique of paper chromatography is used for separation of organic compounds.
- b) Write about:
 - i) Nernst distribution law
 - ii) Distribution coefficient. [8+4+4]

- 8.a) Discuss the applications of gas chromatography in quantitative analysis.
- b) Write a short note on pumping systems used in HPLC. [8+8]

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SET-2

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ANALYTICAL CHEMISTRY
(CHEMICAL ENGINEERING)

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

Answer any FIVE questions
All questions carry equal marks

- - -

- 1.a) Explain the method for estimation of Iron in alloy by using uv-visible spectroscopy.
- b) Write a brief account on types of transitions in organic molecules. [8+8]
- 2.a) Explain various components of IR with the help of neat diagram.
- b) Write the important applications of IR spectroscopy. [8+8]
- 3.a) Explain the Analytical applications of potentiometry.
- b) Define the following:
 - i) Conductivity
 - ii) Specific Conductivity
 - iii) p^H . [8+8]
- 4.a) What is the principle involved in amperometric titrations explain with example?
- b) Write short notes on:
 - i) Controlled current electrolysis
 - ii) Controlled electrode potential electrolysis. [8+8]
- 5.a) How technique of paper chromatography is used for separation of organic compounds.
- b) Write about:
 - i) Nernst distribution law
 - ii) Distribution coefficient. [8+4+4]
- 6.a) Discuss the applications of gas chromatography in quantitative analysis.
- b) Write a short note on pumping systems used in HPLC. [8+8]
- 7.a) Write a short notes on digestion of precipitate.
- b) Describe a method for the determination of Iron by gravimetric analysis. [8+8]
- 8.a) Write a short notes on redox indicators.
- b) Explain the principle & procedure for the estimation brass solder by volumetric titration. [8+8]

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SET-3

I - B.TECH EXAMINATIONS, DECEMBER - 2010
ANALYTICAL CHEMISTRY
(CHEMICAL ENGINEERING)

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

Answer any FIVE questions
All questions carry equal marks

- - -

- 1.a) Explain the Analytical applications of potentiometry.
- b) Define the following:
 - i) Conductivity
 - ii) Specific Conductivity
 - iii) p^H . [8+8]
- 2.a) What is the principle involved in amperometric titrations explain with example?
- b) Write short notes on:
 - i) Controlled current electrolysis
 - ii) Controlled electrode potential electrolysis. [8+8]
- 3.a) How technique of paper chromatography is used for separation of organic compounds.
- b) Write about:
 - i) Nernst distribution law
 - ii) Distribution coefficient. [8+4+4]
- 4.a) Discuss the applications of gas chromatography in quantitative analysis.
- b) Write a short note on pumping systems used in HPLC. [8+8]
- 5.a) Write a short notes on digestion of precipitate.
- b) Describe a method for the determination of Iron by gravimetric analysis. [8+8]
- 6.a) Write a short notes on redox indicators.
- b) Explain the principle & procedure for the estimation brass solder by volumetric titration. [8+8]
- 7.a) Explain the method for estimation of Iron in alloy by using uv-visible spectroscopy.
- b) Write a brief account on types of transitions in organic molecules. [8+8]
- 8.a) Explain various components of IR with the help of neat diagram.
- b) Write the important applications of IR spectroscopy. [8+8]

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SET-4

I - B.TECH EXAMINATIONS, DECEMBER - 2010
ANALYTICAL CHEMISTRY
(CHEMICAL ENGINEERING)

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

Answer any FIVE questions
All questions carry equal marks

- - -

- 1.a) What is the principle involved in amperometric titrations explain with example?
 b) Write short notes on:
 - i) Controlled current electrolysis
 - ii) Controlled electrode potential electrolysis. [8+8]
- 2.a) How technique of paper chromatography is used for separation of organic compounds.
 b) Write about:
 - i) Nernst distribution law
 - ii) Distribution coefficient. [8+4+4]
- 3.a) Discuss the applications of gas chromatography in quantitative analysis.
 b) Write a short note on pumping systems used in HPLC. [8+8]
- 4.a) Write a short notes on digestion of precipitate.
 b) Describe a method for the determination of Iron by gravimetric analysis. [8+8]
- 5.a) Write a short notes on redox indicators.
 b) Explain the principle & procedure for the estimation brass solder by volumetric titration. [8+8]
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 b) Write the important applications of IR spectroscopy. [8+8]
- 8.a) Explain the Analytical applications of potentiometry.
 b) Define the following:
 - i) Conductivity
 - ii) Specific Conductivity
 - iii) p^H . [8+8]

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