Analysis

1. Oxidation
2. Reduction
3. Oxidation state
4. Oxidation number
5. Redox reaction with examples
6. Strength of oxidising and reducing agent.
7. Theory of redox indicators or redox titrations.
8. Iodometry and Iodimetric titration
9. What is the importance of Quantitative analysis in quality control.
10. Theory of Acid-Base. / or Concept of Acid-base titration.
11. Types of Acid-base titration.
12. Neutralization curve of stoong base and stoong acid.

13. Define law of mass action.

14. Give handerson equation for weak acid?

15. Classify acid-base indicators. Discuss various theories of acid-base indicators in detail.

16. Common ion effect and its significance.

17. Define conjugat acid and conjugate base.

18. Define acidimetry and alkimetry.

19. Discuss principle of precipitation.

v.v.t 20. Mohr's method of precipitation titration.

v.v.i 21. Fajan's method of ppt?

V.V.I

22. Volhard's method.

23. Solubility product.

IMP QUES FOR SEMESTER

1. Volumetric Analysis
2. Law of mass action
3. Henderson equation for weak acid.
4. Solubility Product.
5. Quantitative Analysis
6. Self indicator
7. Common Ion Effect.
8. Define Precision
9. Define conjugated Acid and conjugated base.
10. Give the name for indicator in argentometric titration
11. What is standard deviation
12. Define oxidizing and reducing agent.
13. What is primary and secondary standards.

14. Define End point.
15. Classify different techniques of analysis. Explain the rule for identifying significant figure giving suitable example.
16. Discuss the acid-base titration and discuss the various types of acid-base indicator.
17. Discuss principle of precipitation titration. Discuss the Fajan's method.
18. Discuss the volhard method and Mohr's method for precipitation titration.
19. What is argentometric titration. Discuss in detail.

Pharmaceutics :-

1. Why do we do angle of repose?
2. Factors that influence the angle of repose.
3. What are the commonly used methods for determination of angle of repose?
4. Prove the formula of angle of repose
5. Angle of repose for good flowing of powder.
6. Lubricant used for angle of repose.
7. Which method have we used for angle of repose?
8. Write procedure for angle of repose.

9. What we use to measure absolute density.

10. Another name for bulk density.

11. Dilution test is used for which type of emulsion.

12. Define gold number.

13. Discuss the effect of following factors on the rate of decomposition of drug.
    a) Light
    b) Solvent
    c) PH
    d) Temperature.

14. Most pharmaceutical decompositions can be described as Hydrolysis and oxidation. Illustrate how pharmaceutical preparation can be protected against hydrolysis and oxidation.

15. What is accelerated stability testing?

16. Discuss the ICH and WHO guidelines for stability testing and why study of drug stability testing analysis is essential.

17. What are the various causes of stability of drug.

18. Discuss the underlying principle of Aerosol.

V.V.I 19 Polymorphism

20. What is dosage form and their classification.

21. Define colloids and describe the preparation of colloids.

22. What is the pharmaceutical application of colloids.?

23. Write on account of optical, Kinetic and electrical properties of colloids.

24. In tabular form compare the preparation of hydrophilic, hydrophobic and association colloids.

25. Briefly describe the purification of colloids.

26. What do you understand by Brownian motion and gold number.

27. HLB classification.

28. Drop count or Drop weight method.

29. Surface activision.

30. Surface free energy.

31. Buffer capacity.

32. Biological Buffer.

33. Isotonic Buffer.

34. Buffer Equation

35. Buffer in pharmaceutical system.

36. With the use of phase diagrams illustrate the principle of sublimation.

37. Write a note on
    a). Liquid crystal
    b). Eutectic mixture

38. What is an ideal gas? Why do real gases differ in their behaviour from an ideal gas.

39. With the help of neat diagram explain andersson pipette method.

40. With the help of neat diagram explain the principle and working of coulter counter method to determine particle of size range.

41. Define angle of repose. Explain the method to define the same

42. What is specific surface area. How is it measured by air permeability method.

43. Explain porosity. Give its application in pharmacy.

44. Discuss the silent feature of lyophobic and lyophilic colloids. Describe the various factor which influence their stability.

45. Give the importance of complexation phenomenon in pharmacy.

46. Define boiling point, melting point, freezing point and sublimation.

47. Write down the formula for angle of repose.

48. Briefly discuss the procedure for angle of repose.

49. Which method is used for determining angle of repose

50. Name two lubricating agent and its function.

51. Name the ingredient which has been used for determine angle of repose.

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~~51. Give the importance of complexation~~
~~th~~

52. Define complexation. With the help of suitable example describe the following.
   a) Metal complexes
   b) Organic molecular complexes
   c) Occlusion compounds.

53. Define solubility and saturated solution of drug.

54. Give the importance of solubility determination of drug.

55. Differentiate between solution and solubility.

56. Inlist factors influences the solubility.

Inorganic Chemistry:

Q.1. What is Limit test?

Q.2 Why do we perform limit test?

Q.3. Limit test for chloride.

Q.4. Limit test for Arsenic.

Q.5 Limit test for Lead.

Q.6. Limit test for sulphate.

Q.7. Limit test for iron.

Q.8. Acid - base theory.

*Q.9 Examples of acid and Base.

Q.10. Buffer and buffer capacity.

Q.11. HCl and NaOH preparation method.

Q.12. Ca(OH)2

Q.13 Boric acid
→ Preparation
→ Properties
→ Uses.

Q.14. Antioxidants examples and uses.

Q.15. Haber's process for properties of ammonia.

Q.16. What is Gastrointestinal Agents.

Q.17. What is Antacid.

Q.18 Example of antacid.

Q.19 Protective and adsorbent.

Q.20 Define Kaolin, Bismuth subcarbonate.

Q.21. Aluminium hydroxide gel,
Magnesium trisilicate.
Sodium bicarbonate.

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IMP QUES FOR SEMESTER

1. What is buffer capacity.
2. Given any two example of strong acid and weak acid.
3. Give any two example of strong base and weak base.
4. Give the composition of sodium chloride injection.
5. Write the formula and uses of ORS.
6. Classify extra and intracellular electrolytes with examples.
7. What is the biological importance of sodium and chloride ions
8. What is anticaries agent? Give examples.

9. What are dental products? Classify them with examples.

10. What are antacids? Give examples.

11. What is achlorhydia? Give its treatment.

12. Define saline cathartics. Give examples

13. Write the composition and uses of kaolin.

14. What are systemic and non-systemic antacids.

15. Write down the chemical composition and uses of magnesium trisilicate.

16. Give the method of preparations of milk of magnesia.

17. Write down the molecular formula and uses of boric acid.

18. Write the uses of Aluminium hydroxide and magnesium hydroxide.

19. What is milliequivalent per litre.

20. Define gastrointestinal protective agent. Give examples.

14 MARKS

1. Explain the principle and procedure for the limit test for sulphate.

2. What do you mean by the term monograph? What are the content of monograph in details.

3. Write a note on pharmacopia of India. (I.P.).

4. Write the principle, reactions involved in the limit test of iron and lead.

5. What is a buffer solution. Explain the mechanism of buffer action.

6. Define acids and bases according to various acid-base concept.

7. Explain the lewis acid and lewis base with examples.

8. Write a note on electrolytes used in replacement therapy.

9. Define and classify antacids? Discuss the preparation, assay principle and medicinal uses of baking soda.

10. What are saline cathartics? What is their mechanism of action?

11. Describe the various sources of impurities present in pharmaceutical substance.

12. Explain the principle and procedure involved in the limit test of arsenic with a neat labelled diagram of Gutzeit's apparatus.

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Pharmacognosy

1) Identification test for carbohydrate

V.V.I 2.) Chemical classification of crude drugs.

3) Morphological classification of crude drugs.

4.) Alphabetical classification of crude drugs.

V.V.I 5.) Pharmacological classification of ~~crude~~ crude drug.

V.V.I 6) Plant tissue culture

7. Define chromatography.

8. What is pharmacognosy?

9. Define crude drugs?

10. Write down complete history and developments of pharmacognosy?

11. What is the various type of alternative system of medicine.

12. Scope of Pharmacognosy?

13. Role of pharmacognosy.

14. Define plant tissue culture, write down application with figure.

15. Classify different sources of crude drug!.

16. Define organized drug and unorganized drug.

17. What are several type of crude drug.

18. What is carbohydrate, classify it with suitable examples

13 Write down different chemical test for carbohydrates.

English

1. What is English Language?
2. What do you understand by English language?
3. What is the importance of English language in present time.
4. Write an essay on "the importance of english language in global context."
5. Write an application to your principle for getting three days leave.
6. Write an application to your principle for getting sudden leave.
7. Transformation of sentences.
8. Write a letter to your sister congratulating her on her success.

9 Phonetics

10 Syllable

11 Resume

12 Homophones

13 Essay

14. Precis

Mathematics.

✱ Matrices Class -12

Ex. 3.1 → Q. 6, 9.
3.2 → Q. 6, 7.(ii), 17, 18
Q20.
3.3 → Q. 2, 3, 6,
3.4 → 17
Miscellaneous → 5, 8,

✱ Determinants. Class -12

Ex 4.1 → Q. 8
→ Example 14 (Page-116)
→ Example 15 (Page-117)
→ Example 16 (Page-118

Ex. 4.2 → Q. 5, 11, 15
Ex. 4.3 → Q. 5
→ Example 22 (Page-125)
Ex. 4.5 → Q 13

Miscellaneous :→ Q. 6, 14.

✱ Statistics Class -11

Example - 4 (Page - 353)

Ex → 15.1 Q → 3, 6, 7, 11, 12.

→ Example - 11 (Page - 368)
→ Example - 12 (Page - 370)

Ex → 15.2 Q → 2, 6, 7, 10.

→ Example - 14 (Page - 374)
→ Example - 15 (Page - 374)

Ex → 15.3 Q → 3, 4, 5.

→ Example → 17 (Page - 377)
- Example - 19 (Page - 378)

Miscellaneous → Q2, 4, 5, 7.

✱ Co-ordinate Geometry (Class - IX)

→ Example - 14 . Page-160

Ex → 7.1 Q. 3, 4, 7.

→ Example - 9 Page-166

Ex → 7.2 → Q. 2, 5, 6.

Ex → 7.3 → Q. 1 (i), 2 (i), 4.

✱ Straight lines Class - 9

→ Example -1 (Page - 207)

→ Example -3 (Page - 210)

Ex → 10.1 → Q. 3, Q. 5, 7, 9, 10, 11, 13

→ Example - 6. (Page - 213)

→ Example - 9 . (Page - 215)

Ex → 10.2 → Q. 4, 8, 9, 11, 14, 15, 17, 18.

→ Example -13 (Page - 222)

→ Example - 14, 15 (Page - 223)

Ex → 10.3 → Q. 1, Q. 5, 6, 8, 12, 14, 16, 17, 18

→ Example 21, 22, Page (229)

→ Example 24, (Page - 231)

→ Example 25, (Page - 232)

Miscellaneous → Q. 1, 2, 3, 6, 8, 9, 11, 15, 16, 17, 19, 20, 22, 24.

✱ Trigonometric Functions Class - 11

→ Example 1, 2. (Page - 53)
→ Example 5 (Page - 54)
Ex - 3.1 → Q. 4, 5, 6
Ex - 3.2 → Q. 1, 7, 9, 10.
→ ~~Example~~ Theorem → 10, 12 (Page - 66)
→ Example - 13 (Page - 71)
Ex - 3.3 → Q. 5, 22, 23, 25.
Ex 3.4 → Q. 1, Q. 8, 9.
→ Example → 25 (Page - 78)
→ Example - 26 (Page - 79)
→ Example - 28 (Page - 80)
→ Example - 29 (Page - 81)

Miscellaneous → Q. 1, 6, 7.

☆ Limits and Derivatives

→ Illustration 2 (Page - 286)
→ Illustration 3 (Page - 287)
→ Illustration 07 (Page - 289)
→ Illustration 10 (Page - 291)
→ Example - 2 (Page - 294)
→ Example - 3 (Page - 297)
→ Theorem - 4 (Page - 298)
→ Theorem - 5 (Page - 299)

Ex → 13.1 → 0, 6, 8, 11, 14, 18, 23, 25, 28, 29, 32.

Example → 6 (Page - 304)
Example → 8. (Page - 305)
Example - 12. (Page - 307)
Theorem - 5 (Page - 308)
Theorem - 6, (Page - 309),
Example - 15, 18 (Page - 311, 312)

Ex - 13.2 → 0. 3, 5, 6, 8., 9 (vi), 11, (vi), (vii)
Example - 21, 22, (Page - 315, 316)

Miscellaneous → Q 1 (iv), 3, 10, 13, 22, 29, 27.