10th Chemistry Scheme & Guess Paper

GUESS PAPER 2020 CLASS: **TEN** SUBJECT: **CHEMISTRY**

Pairing Scheme for the Year 2020 (All Boards of Punjab)

Unit	9	10	11	12	13	14	15	16
MCQ	2	2	1	1	2	1	2	1
Short Q/A	4	4	3	2	3	3	2	3
	Q # 2		Q # 3			Q # 4		
LQ	Q#5 (a)	Q#5 (b)		Q#6 (a)	Q#6 (b)	×	Q#7 (a)	Q#7 (b)

Most Important Short Questions

Unit 9

1. Reversible & irreversible reaction
2. Dynamic equilibrium & Static equilibrium
3. Law of mass action
4. Equilibrium constant
5. How dynamic equilibrium constant is established
6. Relationship b/w active mass and rate of reaction
7. How direction of a reaction can be predicted?

Unit 10

8. Acid & base according to Arrhenius
9. Limitations of Arrhenious concept
10. Bronsted Lowry Theory
11. Difference b/w Lewis acid & base
12. Why H^+ ion acts as a lewis acid?
13. Uses of sulphuric acid
14. Define pH. What is the pH of pure water?
15. Define pH of solution.
16. indicators
17. What are salts? Give two examples.
18. uses of salts
19. uses of sodium silicate, calcium chloride, calcium oxide
20. Difference b/w acidic salts & basic salts

Unit 11

21. Vital force theory
22. Initial definition of organic compounds
23. Define Catenation
24. Molecular formula with example
25. Write functional group of alcohol
26. How coal is formed?
27. Define functional group
28. What is dot & cross formula?
29. Define open chain/acyclic compound.
30. Define alicyclic/Non-Benzenoid compounds.
31. Heterocyclic compounds with example
32. Define isomerism. How many isomers pentane have?
33. Importance of natural gas

Unit 12

34. Define hydrocarbons.
35. Define open chain hydrocarbons & Closed chain hydro carbons
36. Saturated & unsaturated hydrocarbons
37. Why alkanes are called “Paraffins”?

38. Hydrogenation of alkenes
39. Uses of ethane & ethene

Unit 13

40. Biochemistry
41. Polysaccharides & their properties
42. Characteristics of monosaccharide's
43. Define amino acid. Give its general formula.
44. Diff. b/w essential & non essential amino acid
45. Sources & uses of vitamin A, Vitamin D
46. Carbohydrates & their uses
47. Difference b/w ghee & oil
48. Function of DNA
49. Types of vitamins
50. How you justify RNA works like a messenger?

Unit 14

51. Atmosphere & its spheres
52. Diff. b/w atmosphere & environment
53. Name the major constituents of troposphere
54. Define pollutants. Differentiate b/w primary & secondary pollutants.
55. Green house effect
56. Global warming & its effects
57. Why CO_2 is called green house gas?
58. CO_2 is responsible for heating up atmosphere, how?
59. Effects of acid rain
60. Define Ozone hole & where was it notices first?
61. Effects of ozone depletion
62. Where the ozone layer is found?
63. How acid rain increase the acidity of soil?
64. Why CO is considered a health hazard?
65. How sulphur containing compound are emitted naturally?

Unit 15

66. How water rises in plants?
67. Four properties of water
68. Define capillary action
69. Why the water molecule is polar?
70. Soft water & hard water
71. How temporary hardness of water can be removed by Clark's metjod?
72. Define boiler scales. How are they removed?
73. Why are pesticides & fertilizers used?
74. Why non-polar compounds are insoluble in water?
75. How water rises in plants?
76. Disadvantages of detergents
77. Water borne disease
78. Fluorosis.

Unit 16

79. Metallurgy
80. Difference b/w Minerals & Ores
81. State gravity separation
82. Electromagnetic separation
83. Define Roasting. How is it carried out?
84. Raw materials of Solvey's process
85. Advantages of Solvey's process
86. Petroleum
87. Formation of petroleum
88. How roasting is carried out?
89. Difference b/w crude oil & residual oil
90. Difference b/w diesel oil & fuel oil.
91. Which raw material are used in the manufacturing of urea?
92. How $NaHCO_3$ is converted in Na_2CO_3?

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Most Important Long Questions

1. **(a).** What is meant by a complete & incomplete reaction? Why reactions do not go to completion? **Unit 9**
   (b). Give the macroscopic characteristics of forward reactions, reverse reactions & dynamic equilibrium. **Unit 9**
2. **(a).** State the law of mass action and derive the expression for the equilibrium constant for a given reaction A +B>< C+D / general reaction. **Unit 9**
   (b). Explain the importance of equilibrium constant. **Unit 9**
3. **(a).** Describe a reversible reaction with the help of an example & graph. **Unit 9**
   (b). Compare the physical properties of acids & bases with examples. **Unit 10**
4. **(a).** Explain the Arrhenius concept of acids & bases with examples. What are limitations of this concept? **Unit 10**
   (b). Explain Lewis concept of an acid & a base. **Unit 10**
5. **(a).** What are indicators? How they are used to determine pH of acidic, basic and neutral solutions. **Unit 10**
   (b). Define salts. Explain their characteristics and uses of some important salts. **Unit 10**
6. **(a).** Give the application/uses of some important bases. **Unit 10**
   (b). Explain Bronsted Lowry concept of an acid and base with examples. **Unit 10**
7. **(a).** Describe the important chemical properties of acids. **Unit 10**
   (b). Write a note on classification of organic compounds. **Unit 11**
8. **(a).** Compare the general characteristics of organic & inorganic compounds. **Unit 11**
   (b). Define homologous series. Write its characteristics. **Unit 11**
9. **(a).** Define functional group. Explain the functional group of alcohols, ethers, aldehydes, ketones, carboxylic acid, esters, etc. **Unit 11**
   (b). Explain the meaning of molecular formula, structural formula, condensed structural formula & electronic formula. **Unit 11**
10. **(a).** Define hydrocarbons. How are they classified? **Unit 12**
    (b). Explain methods for preparation of alkanes & alkenes. **Unit 12**
11. **(a).** Discuss physical properties of alkenes & alkynes. **Unit 12**
    (b). Write uses of ethane, ethane, methane & acetylene. **Unit 12**
12. **(a).** Give chemical reactions of alkanes. **Unit 12**
    (b). Define monosaccharides & oligosaccharides. Give their characteristics. **Unit 13**
13. **(a).** Give uses and sources of carbohydrates. **Unit 13**
    (b). Define amino acid. Explain how are they building blocks of proteins? **Unit 13**

14. **(a).** Explain the sources & uses of proteins & lipids. **Unit 13**
    (b). Define vitamins. Discuss the types, sources, uses & importance of vitamins. Also write the effects of deficiency of vitamins. **Unit 13**
15. **(a).** What are carbohydrates? How monosaccharides are prepared? **Unit 13**
    (b). Define atmosphere. How the atmosphere is divided into different layers? **Unit 14**
16. **(a).** Give the characteristics of troposphere. Why does the temperature decreases upward in troposphere while temperature increases upward in this sphere? **Unit 14**
    (b). Define pollutants. Which factors determine the severity of a pollutant? Discuss types of pollutants. **Unit 14**
17. **(a).** What are the oxides of carbon? What are their sources? **Unit 14**
    (a). Define green house effect. Explain its mechanism. **Unit 14**
18. **(a).** Define global warming. Discuss its effects. **Unit 14**
    (b). Compounds of sulphur are air pollutants. Describe the sources of these compounds along with their effects. How pollution due to SO_2 can be controlled? **Unit 14**
19. **(a).** Define acid rain. How it forms and what are its effects? **Unit 14**
    (b). Where does ozone layer lie in the atmosphere? How it is depleting and how can we prevent its depletion? **Unit 14**
20. **(a).** Describe the structure & properties of water in detail. **Unit 15**
    (b). Water is universal solvent. How? **Unit 15**
21. **(a).** Define softening of water? How temporary hardness & permanent hardness can be removed? **Unit 15**
    (b). Explain important water borne diseases. How can these be prevented? **Unit 15**
22. **(a).** How permanent hardness of water can be removed? **Unit 15**
    (b). What are disadvantages of hard water? **Unit 15**
23. **(a).** What is water pollution> Describe the effects of using polluted water. **Unit 15**
    (b). Define following terms: (a) minerals (b) ores (c) gangue (d) slag **Unit 16**
24. **(a).** Define concentration of ore. Describe processes involved in it with diagrams. **Unit 16**
    (b). How a metal is extracted from the concentrated ore by chemical methods? Explain your answer with respect to copper. **Unit 16**
25. **(a).** Write a note on ammonia Solvey's process. **Unit 16**
    (b). How urea is manufactured on commercial scale? Explain with help of diagram. **Unit 16**
    (c). Explain the importance & status of urea. **Unit 16**