

Assignment: science

1. **Science Assignment for CBSE Class 10th Chemistry**

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3. **Instructions:** Answer all the questions to the best of your ability. The assignment consists of 10 questions, with 5 short answer questions and 5 long answer questions.

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5. **Short Answer Questions (30 marks)**

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7. 1. What is the difference between a mixture and a compound? Give one example each. (2 marks)

8. 2. What is the valency of an element? Explain with an example. (2 marks)

9. 3. Define the term 'chemical reaction'. Give one example of a chemical reaction. (2 marks)

10. 4. What is the difference between an acid and a base? Give the pH value of a neutral solution. (2 marks)

11. 5. What is the role of a catalyst in a chemical reaction? Give one example of a catalyst. (2 marks)

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13. **Long Answer Questions (70 marks)**

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15. 6. Describe the structure of an atom, including the proton, neutron, and electron. Explain the

concept of atomic number and mass number. (14 marks)

16. 7. What is the law of conservation of mass? Explain with an example. How does it relate to chemical reactions? (14 marks)

17. 8. Describe the different types of chemical bonds, including ionic, covalent, and hydrogen bonds. Give examples of each type of bond. (14 marks)

18. 9. What is the process of photosynthesis? Explain the importance of photosynthesis in our ecosystem. (14 marks)

19. 10. Describe the water cycle, including the process of evaporation, condensation, and precipitation. Explain the importance of the water cycle in our environment. (14 marks)

20.

21. **Note:** Please answer the questions in the space provided. Use diagrams and equations to support your answers wherever necessary.