

DelsuTools Generated Past Questions

CHM 101: General Chemistry I

Department: Chemistry | Faculty: Science

Level: 100 | Semester: Harmattan | Session: 2017/2018

1. Question 1: What is the atomic number of the element Helium?

- A. 1
- B. 2
- C. 4
- D. 6

Answer: B

Explanation: Helium is the second element in the periodic table with an atomic number of 2.

2. Question 2: Identify the bond type in a molecule of Sodium Chloride (NaCl).

- A. Covalent
- B. Ionic
- C. Metallic
- D. Hydrogen bond

Answer: B

Explanation: NaCl is formed by transfer of electrons from sodium (metal) to chlorine (non-metal), resulting in an ionic bond.

3. Question 3: What is the value of Avogadro's constant?

- A. 6.02×10^{23}
- B. 6.02×10^{24}
- C. 1.67×10^{-27}
- D. 3.00×10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022×10^{23} particles per mole.

4. Question 4: Calculate the volume occupied by 3 moles of an ideal gas at STP.

- A. 67.2 dm^3
- B. 22.4 dm^3
- C. 77.2 dm^3
- D. 44.8 dm^3

Answer: A

Explanation: At STP, 1 mole of any gas occupies 22.4 dm^3 . Volume = $3 \times 22.4 = 67.2 \text{ dm}^3$.

5. Question 5: Which of the following organic compounds is a saturated hydrocarbon?

- A. Ethene
- B. Ethyne
- C. Ethane
- D. Benzene

Answer: C

Explanation: Ethane (C_2H_6) is an alkane, which contains only single carbon-carbon bonds and is therefore saturated.

6. Question 6: What is the atomic number of the element Helium?

- A. 1
- B. 2
- C. 4
- D. 6

Answer: B

Explanation: Helium is the second element in the periodic table with an atomic number of 2.

7. Question 7: Identify the bond type in a molecule of Sodium Chloride (NaCl).

- A. Covalent
- B. Ionic
- C. Metallic
- D. Hydrogen bond

Answer: B

Explanation: NaCl is formed by transfer of electrons from sodium (metal) to chlorine (non-metal), resulting in an ionic bond.

8. Question 8: What is the value of Avogadro's constant?

- A. 6.02×10^{23}
- B. 6.02×10^{24}
- C. 1.67×10^{-27}
- D. 3.00×10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022×10^{23} particles per mole.

9. Question 9: Calculate the volume occupied by 2 moles of an ideal gas at STP.

- A. 44.8 dm^3
- B. 22.4 dm^3
- C. 54.8 dm^3
- D. 44.8 dm^3

Answer: A

Explanation: At STP, 1 mole of any gas occupies 22.4 dm^3 . Volume = $2 \times 22.4 = 44.8 \text{ dm}^3$.

10. Question 10: Which of the following organic compounds is a saturated hydrocarbon?

- A. Ethene
- B. Ethyne
- C. Ethane
- D. Benzene

Answer: C

Explanation: Ethane (C_2H_6) is an alkane, which contains only single carbon-carbon bonds and is therefore saturated.

11. Question 11: What is the atomic number of the element Helium?

- A. 1
- B. 2
- C. 4
- D. 6

Answer: B

Explanation: Helium is the second element in the periodic table with an atomic number of 2.

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12. Question 12: Identify the bond type in a molecule of Sodium Chloride (NaCl).

- A. Covalent
- B. Ionic
- C. Metallic
- D. Hydrogen bond

Answer: B

Explanation: NaCl is formed by transfer of electrons from sodium (metal) to chlorine (non-metal), resulting in an ionic bond.

13. Question 13: What is the value of Avogadro's constant?

- A. 6.02×10^{23}
- B. 6.02×10^{24}
- C. 1.67×10^{-27}
- D. 3.00×10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022×10^{23} particles per mole.

14. Question 14: Calculate the volume occupied by 4 moles of an ideal gas at STP.

- A. 89.6 dm^3
- B. 22.4 dm^3
- C. 99.6 dm^3
- D. 44.8 dm^3

Answer: A

Explanation: At STP, 1 mole of any gas occupies 22.4 dm^3 . Volume = $4 \times 22.4 = 89.6 \text{ dm}^3$.

15. Question 15: Which of the following organic compounds is a saturated hydrocarbon?

- A. Ethene
- B. Ethyne
- C. Ethane
- D. Benzene

Answer: C

Explanation: Ethane (C_2H_6) is an alkane, which contains only single carbon-carbon bonds and is therefore saturated.

16. Question 16: What is the atomic number of the element Helium?

- A. 1
- B. 2
- C. 4
- D. 6

Answer: B

Explanation: Helium is the second element in the periodic table with an atomic number of 2.

17. Question 17: Identify the bond type in a molecule of Sodium Chloride (NaCl).

- A. Covalent
- B. Ionic
- C. Metallic

D. Hydrogen bond

Answer: B

Explanation: NaCl is formed by transfer of electrons from sodium (metal) to chlorine (non-metal), resulting in an ionic bond.

18. Question 18: What is the value of Avogadro's constant?

- A. 6.02×10^{23}
- B. 6.02×10^{24}
- C. 1.67×10^{-27}
- D. 3.00×10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022×10^{23} particles per mole.

19. Question 19: Calculate the volume occupied by 3 moles of an ideal gas at STP.

- A. 67.2 dm^3
- B. 22.4 dm^3
- C. 77.2 dm^3
- D. 44.8 dm^3

Answer: A

Explanation: At STP, 1 mole of any gas occupies 22.4 dm^3 . Volume = $3 \times 22.4 = 67.2 \text{ dm}^3$.

20. Question 20: Which of the following organic compounds is a saturated hydrocarbon?

- A. Ethene
- B. Ethyne
- C. Ethane
- D. Benzene

Answer: C

Explanation: Ethane (C_2H_6) is an alkane, which contains only single carbon-carbon bonds and is therefore saturated.

21. Question 21: What is the atomic number of the element Helium?

- A. 1
- B. 2
- C. 4
- D. 6

Answer: B

Explanation: Helium is the second element in the periodic table with an atomic number of 2.

22. Question 22: Identify the bond type in a molecule of Sodium Chloride (NaCl).

- A. Covalent
- B. Ionic
- C. Metallic
- D. Hydrogen bond

Answer: B

Explanation: NaCl is formed by transfer of electrons from sodium (metal) to chlorine (non-metal), resulting in an ionic bond.

23. Question 23: What is the value of Avogadro's constant?

- A. 6.02×10^{23}
- B. 6.02×10^{24}
- C. 1.67×10^{-27}
- D. 3.00×10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022×10^{23} particles per mole.

24. Question 24: Calculate the volume occupied by 2 moles of an ideal gas at STP.

- A. 44.8 dm^3
- B. 22.4 dm^3
- C. 54.8 dm^3
- D. 44.8 dm^3

Answer: A

Explanation: At STP, 1 mole of any gas occupies 22.4 dm^3 . Volume = $2 \times 22.4 = 44.8 \text{ dm}^3$.

25. Question 25: Which of the following organic compounds is a saturated hydrocarbon?

- A. Ethene
- B. Ethyne
- C. Ethane
- D. Benzene

Answer: C

Explanation: Ethane (C_2H_6) is an alkane, which contains only single carbon-carbon bonds and is therefore saturated.

26. Question 26: What is the atomic number of the element Helium?

- A. 1
- B. 2
- C. 4
- D. 6

Answer: B

Explanation: Helium is the second element in the periodic table with an atomic number of 2.

27. Question 27: Identify the bond type in a molecule of Sodium Chloride (NaCl).

- A. Covalent
- B. Ionic
- C. Metallic
- D. Hydrogen bond

Answer: B

Explanation: NaCl is formed by transfer of electrons from sodium (metal) to chlorine (non-metal), resulting in an ionic bond.

28. Question 28: What is the value of Avogadro's constant?

- A. 6.02×10^{23}
- B. 6.02×10^{24}
- C. 1.67×10^{-27}
- D. 3.00×10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022×10^{23} particles per mole.

29. Question 29: Calculate the volume occupied by 4 moles of an ideal gas at STP.

- A. 89.6 dm³
- B. 22.4 dm³
- C. 99.6 dm³
- D. 44.8 dm³

Answer: A

Explanation: At STP, 1 mole of any gas occupies 22.4 dm³. Volume = 4 x 22.4 = 89.6 dm³.

30. Question 30: Which of the following organic compounds is a saturated hydrocarbon?

- A. Ethene
- B. Ethyne
- C. Ethane
- D. Benzene

Answer: C

Explanation: Ethane (C₂H₆) is an alkane, which contains only single carbon-carbon bonds and is therefore saturated.

31. Question 31: What is the atomic number of the element Helium?

- A. 1
- B. 2
- C. 4
- D. 6

Answer: B

Explanation: Helium is the second element in the periodic table with an atomic number of 2.

32. Question 32: Identify the bond type in a molecule of Sodium Chloride (NaCl).

- A. Covalent
- B. Ionic
- C. Metallic
- D. Hydrogen bond

Answer: B

Explanation: NaCl is formed by transfer of electrons from sodium (metal) to chlorine (non-metal), resulting in an ionic bond.

33. Question 33: What is the value of Avogadro's constant?

- A. 6.02×10^{23}
- B. 6.02×10^{24}
- C. 1.67×10^{-27}
- D. 3.00×10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022×10^{23} particles per mole.

34. Question 34: Calculate the volume occupied by 3 moles of an ideal gas at STP.

- A. 67.2 dm³
- B. 22.4 dm³
- C. 77.2 dm³
- D. 44.8 dm³

Answer: A

Explanation: At STP, 1 mole of any gas occupies 22.4 dm^3 . Volume = $3 \times 22.4 = 67.2 \text{ dm}^3$.

35. Question 35: Which of the following organic compounds is a saturated hydrocarbon?

- A. Ethene
- B. Ethyne
- C. Ethane
- D. Benzene

Answer: C

Explanation: Ethane (C_2H_6) is an alkane, which contains only single carbon-carbon bonds and is therefore saturated.

36. Question 36: What is the atomic number of the element Helium?

- A. 1
- B. 2
- C. 4
- D. 6

Answer: B

Explanation: Helium is the second element in the periodic table with an atomic number of 2.

37. Question 37: Identify the bond type in a molecule of Sodium Chloride (NaCl).

- A. Covalent
- B. Ionic
- C. Metallic
- D. Hydrogen bond

Answer: B

Explanation: NaCl is formed by transfer of electrons from sodium (metal) to chlorine (non-metal), resulting in an ionic bond.

38. Question 38: What is the value of Avogadro's constant?

- A. 6.02×10^{23}
- B. 6.02×10^{24}
- C. 1.67×10^{-27}
- D. 3.00×10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022×10^{23} particles per mole.

39. Question 39: Calculate the volume occupied by 2 moles of an ideal gas at STP.

- A. 44.8 dm^3
- B. 22.4 dm^3
- C. 54.8 dm^3
- D. 44.8 dm^3

Answer: A

Explanation: At STP, 1 mole of any gas occupies 22.4 dm^3 . Volume = $2 \times 22.4 = 44.8 \text{ dm}^3$.

40. Question 40: Which of the following organic compounds is a saturated hydrocarbon?

- A. Ethene
- B. Ethyne

- C. Ethane
- D. Benzene

Answer: C

Explanation: Ethane (C_2H_6) is an alkane, which contains only single carbon-carbon bonds and is therefore saturated.

41. Question 41: What is the atomic number of the element Helium?

- A. 1
- B. 2
- C. 4
- D. 6

Answer: B

Explanation: Helium is the second element in the periodic table with an atomic number of 2.

42. Question 42: Identify the bond type in a molecule of Sodium Chloride (NaCl).

- A. Covalent
- B. Ionic
- C. Metallic
- D. Hydrogen bond

Answer: B

Explanation: NaCl is formed by transfer of electrons from sodium (metal) to chlorine (non-metal), resulting in an ionic bond.

43. Question 43: What is the value of Avogadro's constant?

- A. 6.02×10^{23}
- B. 6.02×10^{24}
- C. 1.67×10^{-27}
- D. 3.00×10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022×10^{23} particles per mole.

44. Question 44: Calculate the volume occupied by 4 moles of an ideal gas at STP.

- A. 89.6 dm^3
- B. 22.4 dm^3
- C. 99.6 dm^3
- D. 44.8 dm^3

Answer: A

Explanation: At STP, 1 mole of any gas occupies 22.4 dm^3 . Volume = $4 \times 22.4 = 89.6 \text{ dm}^3$.

45. Question 45: Which of the following organic compounds is a saturated hydrocarbon?

- A. Ethene
- B. Ethyne
- C. Ethane
- D. Benzene

Answer: C

Explanation: Ethane (C_2H_6) is an alkane, which contains only single carbon-carbon bonds and is therefore saturated.

46. Question 46: What is the atomic number of the element Helium?

- A. 1
- B. 2
- C. 4
- D. 6

Answer: B

Explanation: Helium is the second element in the periodic table with an atomic number of 2.

47. Question 47: Identify the bond type in a molecule of Sodium Chloride (NaCl).

- A. Covalent
- B. Ionic
- C. Metallic
- D. Hydrogen bond

Answer: B

Explanation: NaCl is formed by transfer of electrons from sodium (metal) to chlorine (non-metal), resulting in an ionic bond.

48. Question 48: What is the value of Avogadro's constant?

- A. 6.02×10^{23}
- B. 6.02×10^{24}
- C. 1.67×10^{-27}
- D. 3.00×10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022×10^{23} particles per mole.

49. Question 49: Calculate the volume occupied by 3 moles of an ideal gas at STP.

- A. 67.2 dm^3
- B. 22.4 dm^3
- C. 77.2 dm^3
- D. 44.8 dm^3

Answer: A

Explanation: At STP, 1 mole of any gas occupies 22.4 dm^3 . Volume = $3 \times 22.4 = 67.2 \text{ dm}^3$.

50. Question 50: Which of the following organic compounds is a saturated hydrocarbon?

- A. Ethene
- B. Ethyne
- C. Ethane
- D. Benzene

Answer: C

Explanation: Ethane (C_2H_6) is an alkane, which contains only single carbon-carbon bonds and is therefore saturated.