DelsuTools Generated Past Questions

CHM 101: General Chemistry I

Department: Chemistry | Faculty: Science
Level: 100 | Semester: Harmattan | Session: 2019/2020

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 x 10^23
B. 6.02 x 10^24
C. 1.67 x 10^-27
D. 3.00 x 10^8

Answer: A

Explanation: Avogadro’s constant is defined as 6.022 x 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 x 22.4 = 67.2 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 (C2H6) 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 x 10^23
B. 6.02 x 10^24
C. 1.67 x 10^-27
D. 3.00 x 10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022 x 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 x 22.4 = 44.8 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 (C2H6) 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.

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 x 10^23
B. 6.02 x 10^24
C. 1.67 x 10^-27
D. 3.00 x 10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022 x 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 x 22.4 = 89.6 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 (C2H6) 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 x 10^23

B. 6.02 x 10^24

C. 1.67 x 10^-27

D. 3.00 x 10^8

Answer: A

Explanation: Avogadro’s constant is defined as 6.022 x 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 x 22.4 = 67.2 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 (C2H6) 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 x 10^23
B. 6.02 x 10^24
C. 1.67 x 10^-27
D. 3.00 x 10^8

Answer: A

Explanation: Avogadro’s constant is defined as 6.022 x 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 x 22.4 = 44.8 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 (C2H6) 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 x 10^23
B. 6.02 x 10^24
C. 1.67 x 10^-27
D. 3.00 x 10^8

Answer: A

Explanation: Avogadro’s constant is defined as 6.022 x 10^23 particles per mole.

29. Question 29: 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 x 22.4 = 89.6 dm^3.

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 x 10^23
B. 6.02 x 10^24
C. 1.67 x 10^-27
D. 3.00 x 10^8

Answer: A

Explanation: Avogadro’s constant is defined as 6.022 x 10^23 particles per mole.

34. Question 34: 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 x 22.4 = 67.2 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 (C2H6) 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 x 10^23
B. 6.02 x 10^24
C. 1.67 x 10^-27
D. 3.00 x 10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022 x 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 x 22.4 = 44.8 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 (C2H6) 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 x 10^23
B. 6.02 x 10^24
C. 1.67 x 10^-27
D. 3.00 x 10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022 x 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 x 22.4 = 89.6 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 (C2H6) 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 x 10^23
B. 6.02 x 10^24
C. 1.67 x 10^-27
D. 3.00 x 10^8

Answer: A

Explanation: Avogadro's constant is defined as 6.022 x 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 x 22.4 = 67.2 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 (C2H6) is an alkane, which contains only single carbon-carbon bonds and is therefore saturated.