SCO INTERNATIONAL

CHEMISTRY OLYMPIAD

CLASS 8 SAMPLE QUESTION PAPER

Sample/practice question paper based on the previous paper with answer key and explanations

Designed for schools, teachers, parents, and students; aligned with globally used middle-school science learning expectations, chemistry safety awareness, sustainability, and evidence-based scientific reasoning.

Synthetic Fibres	Metals & Non-metals	Fossil Fuels	Combustion	Sustainability
Objective Paper	Answer Key	Explanations	PDF-ready	Global Standard

SCO International Chemistry Olympiad - Class 8 Sample Question Paper

Official Exam Snapshot

Exam Name	SCO International Chemistry Olympiad	**Class**	8
Question Paper	Set S	**Academic Year**	2026-27
Duration	60 minutes	**Type**	Objective / MCQ
Total Questions	50	**Negative Marking**	No
Core Chapters	Synthetic fibres, materials, fossil fuels, combustion	**Format**	One correct option

Instructions: Read each question carefully. Choose one correct option only. All question passages, data, and reasoning details are placed inside the main question block for clean PDF readability.

Guidelines for Candidates

- Total Questions: 50 | Time: 60 minutes.
- Before the exam begins, candidates may receive additional time to complete required personal details on the OMR sheet or online exam profile.
- The question paper includes General Chemistry, Applied/Case Study, Reason-Assertion, and Achievers-level reasoning questions.
- Every question has exactly one correct answer. Select one response only.
- There is no negative marking unless a school-specific circular states otherwise.
- Calculators are not allowed unless explicitly approved by the exam authority.
- Use careful reading, scientific reasoning, and evidence from the question before choosing the answer.

Question Paper

Section 1: General Chemistry and Core Concepts

Q1. A research team is developing a biodegradable plastic that breaks down quickly in natural environments. Which characteristic of the polymer structure is most likely to enhance its biodegradability?

A. A high degree of cross-linking

B. A highly crystalline structure

C. The presence of ester bonds in the backbone

D. Long, unbranched polymer chains

Answer: C

Explanation: Ester bonds are susceptible to hydrolysis and enzymatic attack. Their presence in the polymer backbone makes the material easier for microorganisms to break down, thereby enhancing biodegradability.

Q2. In a comparative study, scientists find that synthetic fibres exhibit higher tensile strength than many natural fibres. Which factor is primarily responsible for this increased strength?

A. Random arrangement of polymer chains

B. Low degree of polymerization

C. High molecular weight with aligned, long polymer chains

D. Abundant impurities in the fibres

Answer: C

Explanation: A high degree of polymerization, along with the alignment of long chains, leads to strong intermolecular forces and an organized structure. This molecular alignment gives synthetic fibres their superior tensile strength compared to natural fibres, which often have less uniformity.

Q3. Researchers exploring recycling methods for plastics observe that repeated mechanical recycling degrades the polymer chains, reducing quality. Which recycling process could restore the polymer's original properties more effectively?

A. Mechanical grinding and remelting

B. Physical separation by density

C. Chemical recycling through depolymerization and repolymerization

D. Simple shredding into smaller pieces

Answer: C

Explanation: Chemical recycling (depolymerization and subsequent repolymerization) breaks down the plastic into its monomers, which can then be purified and reformed into high-quality polymers. This method helps restore the original properties more effectively than mechanical recycling, which can shorten polymer chains.

Q4. A research lab tests various flame retardants for use in plastics. Which class of compounds is most commonly added to plastics to reduce flammability?

A. Hydrocarbons

B. Halogenated compounds

C. Organic acids

D. Metallic salts without halogens

Answer: B

Explanation: Halogenated compounds (such as brominated flame retardants) are widely used to inhibit combustion. They interfere with the radical chain reactions in flames, thereby reducing flammability.

Q5. A materials scientist studies corrosion resistance and finds that some metals form a protective oxide layer when exposed to air. Which metal is best known for this self-protective behavior?

A. Iron

B. Copper

C. Aluminum

D. Zinc

Answer: C

Explanation: Aluminum forms a thin, stable oxide layer (alumina) on its surface when exposed to air. This passivation layer prevents further oxidation (corrosion) and protects the underlying metal.

Q6. Researchers compare the electrical insulating properties of non-metallic materials. Which atomic characteristic most contributes to the excellent insulating behavior of ceramics?

A. Free electrons available for conduction

B. Covalent or ionic bonding with high electronegativity differences

C. Metallic bonding with a sea of delocalized electrons

D. A disordered atomic structure that facilitates electron flow

Answer: B

Explanation: Ceramics are made up of covalently or ionically bonded atoms with significant electronegativity differences. This bonding does not allow free electrons to move easily, which makes ceramics excellent electrical insulators.

Q7. In alloy research, scientists often mix metals to improve material properties. Which of the following improvements is most commonly observed in alloys compared to their pure metal components?

A. Lower corrosion resistance

B. Increased strength and enhanced resistance to wear and corrosion

C. Reduced melting point

D. Decreased hardness

Answer: B

Explanation: Alloys are engineered to combine the best properties of their constituent metals. They typically exhibit enhanced strength, durability, and corrosion resistance compared to pure metals.

Q8. During a spark test used to identify materials, which observation is most indicative of a metal rather than a non-metal?

A. No spark observed

B. A bright, consistent spark that indicates high conductivity and high temperature

C. A dim, intermittent spark

D. Colorful sparks that change color rapidly

Answer: B

Explanation: Metals, due to their high electrical conductivity and low resistance, typically produce bright, consistent sparks when subjected to a spark test. Non-metals generally do not produce such strong sparks.

Q9. Researchers studying the formation of coal conclude that plant material undergoes transformation over millions of years under heat and pressure. What is the primary process responsible for this transformation?

A. Photosynthesis
B. Metamorphism
C. Rapid microbial decomposition
D. Volcanic activity

Answer: B

Explanation: Coal is formed from the remains of plant material that, over millions of years, is subjected to intense heat and pressure (metamorphism). This process compresses and chemically transforms the organic matter into coal.

Q10. In petroleum refining, fractional distillation is used to separate crude oil into various components. Which property of the different hydrocarbons is primarily exploited in this separation process?

A. Their density differences
B. Their varying boiling points
C. Their electrical conductivity
D. Their viscosity

Answer: B

Explanation: Fractional distillation separates the components of crude oil based on their boiling points. Hydrocarbons with lower boiling points vaporize earlier, while those with higher boiling points condense later.

Q11. A research team is developing alternative fuels to reduce dependence on petroleum. Which renewable resource is being explored for the production of biofuels due to its rapid growth and high oil content?

A. Coal
B. Algae
C. Natural gas
D. Wood

Answer: B

Explanation: Algae are a promising renewable resource for biofuel production because they grow rapidly, can be cultivated on non-arable land, and have a high lipid (oil) content that can be converted into biodiesel.

Q12. In environmental studies, scientists measure the emissions from different fossil fuels. Which fossil fuel is known to produce the highest carbon dioxide emissions per unit of energy generated?

A. Petroleum
B. Natural gas
C. Coal
D. Biomass

Answer: C

Explanation: Coal has a high carbon content and, when burned, produces more carbon dioxide per unit of energy generated compared to petroleum or natural gas.

Q13. In a flame test experiment, a researcher observes a bright red flame when burning a sample. Which metal ion is most likely responsible for this flame color?

A. Sodium (Na^+)

B. Potassium (K^+)

C. Strontium (Sr^{2+})

D. Calcium (Ca^{2+})

Answer: C

Explanation: Strontium ions (Sr^{2+}) produce a characteristic bright red flame when subjected to a flame test. This is a common qualitative analysis technique used to identify the presence of strontium.

Q14. A combustion researcher measures the temperature of a flame and discovers that a fuel with a high hydrogen-to-carbon ratio produces a significantly hotter flame. What is the primary reason for this observation?

A. Hydrogen has a lower ignition temperature than carbon

B. Hydrogen produces more energy per mole during combustion

C. Carbon inhibits the combustion process

D. The flame color is independent of fuel composition

Answer: B

Explanation: Fuels with a high hydrogen-to-carbon ratio release more energy upon combustion because hydrogen burns to form water, releasing a substantial amount of energy. This results in a higher flame temperature.

Q15. A student observes that a blue flame is produced during the complete combustion of a fuel. What does the blue color indicate about the combustion process?

A. Incomplete combustion with soot production

B. High combustion temperature and complete combustion

C. The presence of impurities in the fuel

D. Low oxygen availability during combustion

Answer: B

Explanation: A blue flame is typically a sign of complete combustion and high temperature. It indicates that the fuel is burning efficiently with minimal production of soot or unburnt hydrocarbons.

Q16. In a calorimetry experiment, a researcher measures the energy released during the combustion of a plastic sample. Which property of the plastic is being directly determined by this experiment?

A. Melting point

B. Heat of combustion

C. Density

D. Viscosity

Answer: B

Explanation: Calorimetry is used to measure the heat of combustion-the amount of energy released when a substance burns. This value is critical for assessing the energy content of fuels and plastics.

Q17. Environmental scientists compare the combustion of biomass with that of fossil fuels. Which of the following is a primary environmental advantage of using biomass as a fuel?

A. Biomass combustion produces no emissions

B. Biomass is a renewable resource with a lower net carbon footprint

C. Biomass releases significantly more energy per unit mass

D. Biomass combustion requires no oxygen

Answer: B

Explanation: Biomass is renewable, and when burned, the carbon dioxide released is approximately equal to the amount absorbed during the growth of the biomass. This creates a lower net carbon footprint compared to fossil fuels, which release carbon that has been sequestered for millions of years.

Q18. A researcher studying the environmental effects of combustion adds a small amount of a metal salt to a fuel. The flame subsequently shows a distinct color different from the usual blue or yellow. This observation is an example of:

A. Flame retardation

B. Chemiluminescence

C. Flame emission spectroscopy

D. Thermal decomposition

Answer: C

Explanation: The addition of a metal salt can cause the metal ions to emit light at specific wavelengths when excited by the heat of the flame. This phenomenon is used in flame emission spectroscopy to identify the presence of particular metal ions.

Q19. In a combustion engine test, a high concentration of unburnt hydrocarbons is detected in the exhaust. What does this indicate about the engine's combustion process?

A. Complete combustion is occurring

B. Incomplete combustion is occurring

C. The engine is highly efficient

D. The fuel mixture is overly lean

Answer: B

Explanation: A high concentration of unburnt hydrocarbons in the exhaust indicates incomplete combustion. This may be due to insufficient oxygen or poor mixing of fuel and air, leading to reduced energy efficiency and increased emissions of pollutants.

Q20. During an investigation of combustion emissions, scientists find that carbon monoxide (CO) levels are higher under certain conditions. Which condition is most likely to lead to increased CO production during combustion?

A. A fuel-air mixture that is oxygen-rich

B. A fuel-air mixture that is oxygen-deficient (rich in fuel)

C. Very high combustion temperatures

D. A perfectly stoichiometric fuel-air mixture

Answer: B

Explanation: An oxygen-deficient (rich) fuel-air mixture leads to incomplete combustion, which results in the formation of carbon monoxide (CO) instead of carbon dioxide (CO_2). This incomplete combustion is a common cause of elevated CO levels.

Section 2: Applied Chemistry and Data-based Questions

Q21. A researcher is investigating how adding a plasticizer affects polyvinyl chloride (PVC). The plasticizer is found to increase the flexibility of PVC. Which effect of the plasticizer on the polymer structure best explains this observation?

A. It increases the degree of polymerization.

B. It introduces cross-linking between polymer chains.

C. It decreases intermolecular forces between the polymer chains.

D. It raises the crystallinity of the polymer.

Answer: C

Explanation: Plasticizers work by intercalating between polymer chains, reducing the attractive intermolecular forces (such as van der Waals forces) and increasing the free volume. This decreased interaction allows the chains to slide past each other more easily, resulting in increased flexibility.

Q22. A laboratory tests the durability of synthetic fibres exposed to natural sunlight for prolonged periods. The fibres lose tensile strength significantly after exposure. Which chemical process is most likely responsible for this degradation?

A. Hydrolysis

B. Photodegradation

C. Thermal decomposition

D. Oxidative polymerization

Answer: B

Explanation: Photodegradation occurs when ultraviolet (UV) radiation from sunlight breaks down the chemical bonds within the polymer chains. This process leads to a reduction in molecular weight and a loss of tensile strength over time.

Q23. In designing a high-performance plastic for outdoor applications, a research team incorporates an additive that minimizes color fading and structural damage from UV light. Which type of additive is most effective for this purpose?

A. Plasticizers

B. Flame retardants

C. UV stabilizers

D. Antioxidants

Answer: C

Explanation: UV stabilizers absorb or screen out harmful ultraviolet radiation, thereby protecting the polymer from photodegradation. This minimizes color fading and preserves the material's mechanical properties when exposed to sunlight.

Q24. A materials scientist is studying the electrical conductivity of different substances. Which characteristic of metallic bonding most directly accounts for the high conductivity of metals?

A. The fixed positions of atoms in a crystalline lattice

B. The presence of delocalized electrons forming a "sea" around positive ions

C. The strong covalent bonds between metal atoms

D. The high density of metals compared to non-metals

Answer: B

Explanation: In metals, electrons are not bound to any particular atom and can move freely throughout the lattice. This delocalization of electrons (often described as a "sea of electrons") is responsible for the high electrical conductivity of metals.

Q25. A researcher aims to develop a corrosion-resistant alloy by modifying steel. Which element is most commonly added to steel to form a protective oxide layer that resists further corrosion?

A. Nickel

B. Chromium

C. Manganese

D. Copper

Answer: B

Explanation: Chromium is added to steel to produce stainless steel. It reacts with oxygen to form a thin, adherent oxide layer (chromium oxide) that protects the underlying metal from further oxidation (corrosion).

Q26. A geologist studying fossil fuels observes that coal formation involves the transformation of plant material under high pressure and temperature over millions of years. Which process best describes this transformation?

A. Rapid microbial decomposition

B. Metamorphism

C. Thermal cracking

D. Oxidation

Answer: B

Explanation: Coal formation is a slow process in which plant material is subjected to increasing pressure and temperature over geological time. This transformation, a type of low-grade metamorphism, converts the organic matter into coal with higher carbon content.

Q27. During petroleum refining, crude oil is separated into different fractions by fractional distillation. Which physical property of the hydrocarbons is primarily exploited in this process?

A. Density differences

B. Viscosity differences

C. Boiling point differences

D. Molecular weight differences

Answer: C

Explanation: Fractional distillation separates crude oil based on the differing boiling points of its hydrocarbon components. Lower boiling point fractions vaporize at lower temperatures and are collected earlier, while higher boiling point fractions are collected later.

Q28. A renewable energy research team is investigating the use of algae as a source for biofuels. Which feature of algae makes it an attractive candidate for sustainable fuel production?

A. Its ability to store large amounts of carbohydrates

B. Its rapid growth rate and high lipid (oil) content

C. Its capability to absorb heavy metals from water

D. Its role in oxygen production during photosynthesis

Answer: B

Explanation: Algae grow quickly and can produce high levels of lipids, which can be converted into biodiesel. Their rapid biomass accumulation and high oil content make them an attractive renewable resource for biofuel production.

Q29. In a combustion experiment, a researcher observes that a fuel with a high hydrogen-to-carbon ratio produces a hotter flame compared to a fuel with a lower ratio. Which explanation best accounts for this observation?

A. Hydrogen has a higher ignition temperature than carbon.

B. Hydrogen combustion releases more energy per mole than carbon combustion.

C. Carbon hinders the combustion process by forming soot.

D. The high hydrogen content increases the flame's color intensity.

Answer: B

Explanation: Hydrogen combustion (forming water) releases a large amount of energy per mole. Fuels with a higher hydrogen-to-carbon ratio tend to release more energy during combustion, resulting in a hotter flame.

Q30. A researcher is testing the efficiency of different fuels in a small combustion engine. In one test, the engine produces a blue flame, while in another test with a different fuel, the flame appears yellowish. What does the blue flame most likely indicate?

A. Incomplete combustion with soot formation

B. Complete combustion with high temperature

C. The presence of metallic impurities in the fuel

D. A lower energy release per unit mass

Answer: B

Explanation: A blue flame is a hallmark of complete combustion and high temperature, indicating that the fuel is burning efficiently with minimal production of soot or unburned hydrocarbons. In contrast, a yellow flame often signals incomplete combustion.

Section 3: Reason and Assertion

Q31. Assertion: The incorporation of plasticizers into polyvinyl chloride (PVC) increases its flexibility and workability.

Reason: Plasticizers intercalate between polymer chains and reduce the intermolecular forces, thereby lowering the rigidity of the polymer.

Answer: A

Explanation: Both the assertion and the reason are true. The addition of plasticizers disrupts the close packing of PVC polymer chains by reducing van der Waals interactions. This results in a more flexible, less brittle material.

Q32. Assertion: Synthetic fibres generally exhibit higher tensile strength compared to many natural fibres.

Reason: Synthetic fibres are produced from high-molecular-weight polymers with a highly oriented and uniform molecular alignment.

Answer: A

Explanation: Both statements are true, and the reason correctly explains the assertion. The manufacturing processes for synthetic fibres often align the long-chain molecules, which enhances the intermolecular forces and results in higher tensile strength.

Q33. Assertion: Adding UV stabilizers to plastics helps reduce photodegradation and color fading when exposed to sunlight.

Reason: UV stabilizers absorb harmful ultraviolet radiation and convert it into less damaging forms of energy.

Answer: A

Explanation: Both the assertion and the reason are true, and the reason directly explains why UV stabilizers protect plastics from degradation caused by UV light.

Q34. Assertion: Metals exhibit high electrical conductivity.

Reason: In metals, the presence of delocalized electrons allows free movement of charge throughout the lattice.

Answer: A

Explanation: Both statements are true, and the free (delocalized) electrons in the metallic "sea" facilitate efficient electron flow, which is the basis for the high electrical conductivity of metals.

Q35. Assertion: Stainless steel is highly resistant to corrosion compared to ordinary steel.

Reason: The chromium present in stainless steel reacts with oxygen at ambient temperatures to form a thin, protective chromium oxide layer on its surface.

Answer: A

Explanation: Both statements are true, and the formation of a protective oxide layer (passivation) due to chromium is the reason why stainless steel resists corrosion more effectively than plain steel.

Q36. Assertion: Coal is formed from plant material that has undergone transformation under high pressure and temperature over millions of years.

Reason: The process of low-grade metamorphism alters the chemical composition and structure of plant remains, increasing the carbon content and forming coal.

Answer: A

Explanation: Both the assertion and the reason are true. The metamorphic process (subjecting plant matter to pressure and temperature) converts it into a carbon-rich substance, which is essentially the formation mechanism for coal.

Q37. Assertion: Fractional distillation is an effective method for separating crude oil into its various useful components.

Reason: Different hydrocarbons in crude oil have distinct boiling points, allowing them to be separated by gradually increasing the temperature during distillation.

Answer: A

Explanation: Both statements are true, and the distinct boiling points of the different hydrocarbon fractions are what make fractional distillation an effective separation technique in petroleum refining.

Q38. Assertion: Biofuels derived from algae are considered a sustainable alternative to fossil fuels.

Reason: Algae have a high lipid content and a rapid growth rate, which makes them an excellent renewable source for producing biodiesel.

Answer: A

Explanation: Both the assertion and the reason are true, and the high lipid content coupled with the fast growth of algae is the main reason they are a promising renewable resource for biofuel production.

Q39. Assertion: A blue flame during the combustion of a fuel indicates complete combustion.

Reason: Complete combustion occurs when there is sufficient oxygen available to oxidize the fuel entirely, resulting in a hotter flame and minimal soot formation.

Answer: A

Explanation: Both statements are true. A blue flame is indicative of complete combustion, where the fuel is efficiently oxidized (with proper oxygen supply), producing high temperatures and little to no unburnt carbon (soot).

Q40. Assertion: A yellowish flame in a combustion process is a sign of incomplete combustion.

Reason: Incomplete combustion results from insufficient oxygen, leading to the formation of carbon particles (soot) that emit yellow light when heated.

Answer: A

Explanation: Both the assertion and the reason are true, and the presence of soot due to incomplete combustion is what causes the yellow coloration in the flame.

Section 4: Achievers Section

Q41. A researcher compares biodegradable plastics and conventional polyethylene. Which structural feature most supports biodegradation in a polymer?

A. Very high cross-linking density

B. Hydrolysable ester bonds in the main chain

C. Metallic fillers throughout the polymer

D. Complete absence of functional groups

Answer: B

Explanation: Ester bonds can be broken by hydrolysis and by enzymes from microorganisms. This makes many polyesters more biodegradable than polymers such as polyethylene, which have mostly stable carbon-carbon backbones.

Q42. A sportswear company wants a synthetic fibre that is strong, light, and dries quickly. Which property combination is most suitable?

A. Low molecular weight and high water absorption

B. High tensile strength and low water absorption

C. High brittleness and high water absorption

D. Low melting point and weak intermolecular forces

Answer: B

Explanation: Sportswear fibres should resist stretching and tearing while not retaining too much water. High tensile strength and low water absorption meet these practical needs.

Q43. A student tests four materials with a circuit. Material X completes the circuit and can be hammered into a thin sheet. What is X most likely to be?

A. A metal

B. A plastic

C. A ceramic

D. A non-metallic gas

Answer: A

Explanation: Electrical conductivity and malleability are typical metallic properties, caused by metallic bonding and mobile delocalized electrons.

Q44. A bridge component made of iron rusts quickly in moist air, but stainless steel resists rusting. Which explanation is best?

A. Stainless steel contains chromium, which forms a protective oxide layer

B. Stainless steel contains no metal atoms

C. Iron cannot react with oxygen

D. Rusting is only a physical change

Answer: A

Explanation: Chromium in stainless steel forms a thin chromium oxide layer that protects the metal surface from further corrosion.

Q45. Crude oil is heated in a fractionating column. Why do different fractions collect at different heights?

A. They have different colors

B. They have different boiling point ranges

C. They have different magnetic strengths

D. They dissolve differently in water

Answer: B

Explanation: Fractional distillation separates hydrocarbons mainly by boiling point. Lower-boiling fractions rise higher before condensing, while higher-boiling fractions condense lower in the column.

Q46. Which statement best explains why coal is considered a non-renewable resource?

A. It can be made quickly in a laboratory

B. It forms from ancient plant matter over millions of years

C. It is made every day during combustion

D. It has no carbon atoms

Answer: B

Explanation: Coal takes millions of years to form under pressure and heat. Human use is much faster than its natural formation, so it is non-renewable on human time scales.

Q47. A gas stove burns with a steady blue flame. What does this most likely show?

A. Complete combustion with enough oxygen

B. Incomplete combustion with soot formation

C. Burning without oxygen

D. A chemical reaction has stopped

Answer: A

Explanation: A blue flame usually indicates sufficient oxygen and more complete combustion, producing mainly carbon dioxide and water with little soot.

Q48. A room heater produces a yellow smoky flame. Which safety concern is most important?

A. It may indicate incomplete combustion and possible carbon monoxide formation

B. It proves the heater is working at maximum efficiency

C. It shows there is too much oxygen

D. It means no harmful gases can be produced

Answer: A

Explanation: A yellow smoky flame often means incomplete combustion. In limited oxygen, carbon monoxide may form, which is poisonous and dangerous.

Q49. A recycling centre sorts plastic bottles before processing them. Why is sorting important?

A. Different plastics may require different recycling conditions

B. Sorting makes all plastics biodegradable immediately

C. Sorting changes plastic into metal

D. Sorting removes the need for any cleaning

Answer: A

Explanation: Plastics vary in structure, melting behavior, additives, and recycling method. Sorting improves product quality and avoids contamination during recycling.

Q50. A school experiment compares paper, wood, and a plastic strip near a flame under teacher supervision. Which observation best supports the idea that combustion is a chemical change?

A. The material changes shape only

B. New substances such as smoke, ash, carbon dioxide, and water vapour can form

C. The material only becomes smaller without reacting

D. The material always returns to its original form after cooling

Answer: B

Explanation: Combustion forms new substances and releases energy, so it is a chemical change rather than a simple physical change.

Answer Key

Q.No.	Ans.	Q.No.	Ans.	Q.No.	Ans.	Q.No.	Ans.	Q.No.	Ans.
1	**C**	2	**C**	3	**C**	4	**B**	5	**C**
6	**B**	7	**B**	8	**B**	9	**B**	10	**B**
11	**B**	12	**C**	13	**C**	14	**B**	15	**B**
16	**B**	17	**B**	18	**C**	19	**B**	20	**B**
21	**C**	22	**B**	23	**C**	24	**B**	25	**B**
26	**B**	27	**C**	28	**B**	29	**B**	30	**B**
31	**A**	32	**A**	33	**A**	34	**A**	35	**A**
36	**A**	37	**A**	38	**A**	39	**A**	40	**A**
41	**B**	42	**B**	43	**A**	44	**A**	45	**B**
46	**B**	47	**A**	48	**A**	49	**A**	50	**B**

Note: Each question block in this Word file also includes the answer and explanation for teacher/student review.

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