Answer Key

NOTE Graphic organizer answers are suggestions only and may not match students' answers exactly.

Preview Test

1. (A)
2. (B)
3. (D)
4. (A)
5. (B)
6. (A)
7. (A)
8. (C)
9. (D)
10. (A, E, F)

CHAPTER 1 | FACT QUESTIONS

01 Astronomy

Earth's Atmosphere vs. Titan's Atmosphere		
Earth	Both	Titan
• Evaporation of water produces atmospheric events • ITCZ exists along equatorial region	• Atmospheric forces result in inter-tropical convergence zone	• Evaporation of methane produces atmospheric events • ITCZ exists along middle and polar regions

1. (B)
2. (A)
3. (D)

Summary: The passage compares and contrasts the atmospheres of Earth and Saturn's moon, Titan. The Earth's atmospheric conditions determine cloud formation, precipitation, and wind direction. On Titan, methane vapor behaves in a way similar to water vapor on Earth. Due to the moon's lower temperatures, methane on Titan coalesces into a liquid, which then becomes a vapor and mirrors the behavior of water on Earth. Unlike the concentration of clouds and precipitation along the Earth's equatorial region, however, the liquid methane on Titan moves toward its poles, where it is then deposited as precipitation. By studying the evaporation of methane and its formation into clouds on Titan, scientists can hone their understanding of atmospheric science.

02 Environmental Science

Preventing Water Pollution with Soil Analysis		
Problem	Solution (step 1)	Solution (step 2)
Harmful bacterial contaminants are polluting water sources	Soil samples are taken from areas and evaluated for concentrations of bacteria	Experts return to high-risk areas and help owners take preventative measures against contamination

1. (B)
2. (D)
3. (A)

Summary: The passage explains how some governments have recently developed testing methods to prevent bacterial contamination of lakes, rivers, and oceans. These methods are being employed to identify likely sources of water pollution and determine where preventative measures are needed, especially in the agricultural industry. By analyzing soil samples for high concentrations of bacteria, experts can then take measures to stop contamination before it occurs.

03 Business

Equity Theory		
Definition	Application	Criticisms
Individuals act to correct perceived inequities in relationships with others	To help managers better understand employees' motivations	Fails to account for aspects of personality that may influence choice to correct inequity
		Does not address how individuals act in response to relationship with system or institution

1. (C)
2. (A)
3. (A)

Summary: The passage discusses equity theory. Equity theory attempts to explain the behavior of individuals by arguing that they strive toward equilibrium in certain situations. Individuals seek to fix inequities that they perceive in their relationships with other people. It has been used as a tool for business management to help employers understand their employees. However, it fails to consider quirks in personalities or feelings of unfair compensation among fellow employees within a system. These weaknesses highlight the impractical aspects of equity theory, such as oversimplification.

04 Biology

Thermoregulation	
Types	Explanation
Changing rate of metabolic heat production	By making muscles move and burn energy, hypothalamus can generate heat
Adjusting heat exchange between organism and environment	By adjusting the size of blood vessels near surface of skin, hypothalamus can control amount of heat lost to environment
Cooling with evaporative heat loss	By using sweat or other liquids on skin, terrestrial mammals can use evaporation to decrease temperature
Relocation or hibernation	By practicing certain behaviors, mammals can control heat lost or gained from environments

1. (A) 2. (D) 3. (C)

Summary: The passage describes how mammals have developed a sophisticated nervous system to control their internal temperature. Thermoregulation allows for temperature regulation through a series of physiological responses controlled by the hypothalamus. The hypothalamus can signal the muscles to metabolize substances to produce energy and can cause blood vessels to constrict to reduce heat loss. Because of thermoregulation, mammals can maintain a relatively constant temperature in warm and cold conditions alike. This allows for freedom from the environmental conditions that affect other animals like reptiles, but it requires a great expenditure of energy.

05 Environmental Science

Flood Control	
Methods	Explanation
Levees	Riverbanks enlarged to contain floodwater
Damming	Floodwaters collected in reservoir and released in slow, controlled manner
Channelization	Alters riverbed or diverts river into new channels to increase flow and volume

1. (C) 2. (D) 3. (D)

Summary: The passage describes ways in which humans have tried to artificially control the flooding of rivers in the modern era. During the spring and summer months, heavy rains or melting snow that has accumulated in the mountains cause flooding. Over the centuries, people have tried to manipulate rivers and the environments around them to minimize flooding in their communities. People attempt to mitigate the effects of flooding through levees, dams, or channelization. However, these measures restrict the deposit of sediments, or are costly and harmful for the environment. By controlling construction within the floodplain and managing debris in areas prone to flooding, we can adapt to rivers' natural behavior.

06 Art History

The Lithographic Process			
Steps			
Special crayon marks a design on the surface of plate	Plate is treated in acid bath to fix marked design on plate	Plate is immersed in water: marked portions repel water, other parts soak it up	Plate is removed from water and inked: marked portions absorb ink, water-soaked portions repel it

1. (B) 2. (D) 3. (D)

Summary: The passage discusses the process of lithography. Discovered in the 1790s, lithography is unlike other printmaking techniques in that it has not had such a long development toward its modern adaptation. Printmakers use a grease crayon to draw a design on a plate of limestone or aluminum. The plate is then treated with acid, saturated in water, and inked. Parts of the plate soaked in water repel the ink. When the plate is pressed onto paper, only the greased parts soaked in ink print on the page. By changing the concentration of components in the grease crayon, the amount of ink taken by the plate can be manipulated. One can also change the tone of ink on an image, a technique not possible through other printmaking methods. The process is cheaper and less labor-intensive than other printmaking techniques and quickly gained popularity.

CHAPTER 2 | NEGATIVE FACT QUESTIONS

01 Photography

Daguerreotypes vs. Calotypes		
Daguerreotypes	Both	Calotypes
• Developed on metal plate • One of a kind • Fragile • Clear details	• Revolutionized photography • Reduced exposure times • Made photographs available to the public	• Developed on paper • Used negatives • Multiple copies could be made • Blurred images

1. (A) 2. (C) 3. (D)

Summary: The passage describes two early, very different photographic processes that broadened the scope of photography. Previously, developing photographs had been a long and tedious process. Daguerreotypes, invented in France, were very clear and detailed. They were developed on metal plates and were one of a kind. However, the mercury fumes used to form a latent image were hazardous to the health of the photographer. Calotypes were developed on paper and were faintly blurry. They used negatives and were able to be reproduced multiple times. Calotypes were less fragile than daguerreotypes, making them more popular among travelers. Concepts from both processes are still used in modern photography today.

02 Geology

The Effects of Temperature on Elevation	
Cause	Effects
Increase or decrease in temperature can affect elevation by changing density and buoyancy of crustal rock	Higher temperatures cause higher elevations as heat reduces density and increases buoyancy
	Lower temperatures cause drop in elevation as density thickens and decreases buoyancy

1. (C) 2. (D) 3. (B)

Summary: A new study has shown a correlation between the temperature of the Earth's crust and elevation. Scientists had previously thought that variations in crustal rocks were the reasons for elevation and buoyancy in certain areas. Heat in the Earth's crust increases elevation, while cold decreases it. Observing temperature, composition, and crustal rock thickness allows scientists to study other heat sources that may affect elevation, such as hot spots in the Earth's mantle that melt and create magma. By monitoring changes in elevation, scientists can detect changes in the Earth's surface, which may signal impending natural disturbances.

03 Architecture

Architectural Styles of Le Corbusier		
International	Expressionism	Brutalism
• Radical simplification of form, rejection of ornamentation • Use of glass, steel, and concrete; transparency • Honest expression of structure and acceptance of industrialized mass-production techniques	• Distortion of forms for emotional effect • Curving of geometry • Subduing of realism • Borrowing of natural forms • Use of mass-produced materials	• Use of rough-hewn concrete, stone, stucco, and glass • Striking repetition of angular geometrics, rough unadorned concrete, blatant irregularities • Building's function displayed in some manner in exterior construction

1. (C) 2. (B) 3. (D)

Summary: The passage discusses Le Corbusier, one of the greatest modernist architects of the twentieth century. He used different styles of architecture throughout his career. In his earlier years, he used the international style. It rejected ornamentation and favored transparency to let in more natural light. After WWII, Le Corbusier used expressionist and then Brutalist styles in his designs. Brutalism features angular shapes, irregularities, and rough, unadorned concrete. For example, Le Corbusier's La Tourette exhibits a stark design on the exterior and it dominates the surrounding landscape.

04 Environmental Science

Mountaintop Removal Mining	
Advantages	Disadvantages
• Cost-effective • Faster than underground mining • Companies pay fewer employees • No risk of cave-ins • Creates land for stores, schools, etc.	• Explosions damage home foundations • Dust from explosions contains harmful sulfur • Fewer jobs for mining community residents • Water contamination • Toxic slurry ponds can break loose of dams and flood communities

1. (C) 2. (A) 3. (D)

Summary: The passage discusses the large amount of controversy surrounding mountaintop removal mining. This form of surface mining creates a flat plateau that sits far below the hills that surround it. Although mountaintop removal mining allows more coal resources to be harvested in a shorter amount of time, the environmental and personal impact is extremely high in areas where it is practiced. Dust and debris that result from the destruction of the mountain pose health risks to people living close by. Also, the valley fills that are created from the remains of the mountain have buried almost two million meters of streams that have become contaminated. Acidic water that is high in magnesium accumulates in groundwater systems, which results in polluted water for those living in nearby communities.

05 Linguistics

Dunstan Baby Language	
Benefits	Criticisms
• Caregivers reported less stress, more sleep, and higher self-esteem • Closer bonds and more easily calmed babies • Taught on DVDs for repeated viewing at leisure	• No methodology for the research • Language experts argue that it is not in IPA and phonemes of sound reflexes have no meaning • Babies may be conditioned to make sound reflexes by receiving attention when sounds are made

1. (B) 2. (C) 3. (D)

Summary: The passage discusses Dunstan Baby Language, which operates on the belief that babies make five sound reflexes to indicate their needs. Through her empirical studies, Priscilla Dunstan claimed that these sounds are produced by a baby in response to a need, such as hunger, tiredness, or flatulence. However, there is no concrete data proving that Dunstan's theory is valid. Critics claim that no methodology was given for the research and that the sounds babies make may not be construed as language. Furthermore, babies may be conditioned to make these sounds by their caregivers.

06 Psychology

The Availability Heuristic	
Definition	Roles
People tend to judge probability of a situation by how easily they can think of incidences or examples	Assists people in making decisions and judgments through reasoning
	Trustworthy when used objectively

1. (D) 2. (B) 3. (D)

Summary: Heuristics are learned or inherent rules that explain how people make decisions, form judgments, and solve problems. The availability heuristic is based on people's judgment of a situation's probability based on what is easily recalled from memory. For example, because people more easily recall airplane catastrophes, they may believe that flying carries a higher risk than driving. Also, parents may perceive that the risk of child abduction is higher than it actually is due to media coverage. Another instance is employees who believe that they are more protected against employment termination than they really are. The recollection of some information may be biased because people's knowledge is based only on their experiences and those of others they know.

CHAPTER 3 | INFERENCE QUESTIONS

01 Business

Productivity	
Causes	Effect
Good employee attitudes arise from well-managed companies and motivation	Improved productivity
Rewards and incentives engage workers in developing ideas to make a company successful	

1. (C) 2. (C) 3. (A)

Summary: According to the passage, developing good employee attitudes and offering incentives can improve a company's productivity. Well-organized companies and motivation from employers create good attitudes among workers, which engage workers and make them want to be successful in their jobs. Some companies may set their sales quota low so that most salespeople can attain that quota, which makes them feel useful and needed. Financial incentives and merchandise rewards can also improve employee productivity. Other incentives take the form of employee retirement plans or stocks. These various incentives encourage hard work and often lead to an increase in productivity.

02 Psychology

Blind Studies		
Single-blind	Both	Double-blind
• Researchers know full details of experiment • Experimenter effects can influence results	• Participants do not have information about experiment • Attempt to reduce bias in research • Participants placed in control group or experimental group	• Researchers and participants do not know to which group participants belong • Almost no experimenter effects

1. (A) 2. (B) 3. (B)

Summary: According to the passage, single- and double-blind studies address the problem of bias in research. Any prejudice of researchers or participants could influence the results of an experiment. In these experiments, participants are either part of a control group, in which they are unexposed to a particular treatment, or are part of an experimental group, in which they are exposed to the treatment in the experiment. Single-blind studies do have a flaw. Researchers may give simple cues to participants that may lead to inaccurate results. Double-blind studies withhold information not only from the participants, but also from researchers, which lessens the possibility of bias from the researchers or the participants.

03 History

The Hellenistic Age	
Scientific Achievements	Artistic Achievements
Astronomer determined that Earth is smaller than sun and planets revolve around sun	Colossus of Rhodes and Winged Victory of Samothrace sculptures created
Scholars determined Earth's circumference and size of objects using concepts from geometry	Alexandria's palaces and structures including Pharos, a huge lighthouse

1. (D) 2. (A) 3. (B)

Summary: According to the passage, the Hellenistic Age produced many achievements in the arts and sciences. The city of Alexandria's research library and museum attracted many prominent Greek scholars. Astronomers also came to study the heavens in the museum's observatory, which led to the conclusion that the planets, in fact, revolve around the sun. Scholars developed concepts and built formulas to determine the size of certain objects such as the Earth. There are many examples of art achievements in the Hellenistic Age, which included, among magnificent palaces and structures, a statue honoring a naval victory against those who threatened the Greeks' freedom.

04 Environmental Science

Habitat Fragmentation	
Effects	Example
Localized extinction	New England cottontail rabbit is vulnerable to predators due to loss of habitat
Edge effects	Forest animals are impacted due to change in ecosystem and climate

1. (A) 2. (C) 3. (D)

Summary: According to the passage, habitat fragmentation causes species extinction and edge effects in habitats that have been broken down into smaller patches of land. These patches are typically the result of rural development or agricultural practices. Because predators can adapt more easily to changing environments, their prey become more susceptible to attack, which makes localized species extinction more likely. The edge effects of habitat fragmentation influence the climates between the edge and the interior of a fragmented habitat. If animals that live in these habitats do not migrate, they often face localized extinction.

05 Art History

Kapa Making Process			
Step 1:	Step 2:	Step 3:	Step 4:
Cultivation and harvest of trees	Stripping and softening of bark	Beating of bark fibers into cloth	Dyeing, decorating, and scenting of cloth

1. (B) 2. (C) 3. (A)

Summary: The passage discusses how Hawaiians in the eighteenth century made material called kapa out of tree bark. The process of making kapa required diligence that began with the cultivation of wauke trees. Once the trees were gathered, the kapa makers used serrated shells to cut the bark off the stalk. After the inner bark was scraped off and soaked in water, the softened strips were pounded with mallets, then dyed and scented. Though kapa making became a lost art for several generations, there has been a recent resurgence in making kapa materials using traditional methods.

06 Biology

Diversity in the Cambrian Seas	
Theory	Support
Organisms in Cambrian Period more diverse than modern organisms	Rapid evolution of organisms during Cambrian Explosion
	Chengjiang Biota fossils site classified into more than 120 species and ten phyla
	Burgess Shale fossils revealed characteristics not seen in modern organisms

1. (A) 2. (B) 3. (C)

Summary: According to the passage, seas in the Cambrian Period of Earth's history were teeming with new forms of life. Recent discoveries at two fossil sites determined that the organisms were more diverse than modern animals. The Cambrian Explosion, an evolutionary phenomenon that occurred during a short period of time, resulted in a large number of complex multicelled organisms. Fossils embedded in mudstone at the Chenjiang Biota have led to the discovery of numerous species, some of which cannot be identified using modern biological classification systems. Furthermore, fossils found in the Burgess Shale revealed an extensive amount of overlap with the species found at the Chengjiang Biota. One organism that lived during the Cambrian Period was the *Marella*, which had two spines and twenty-six body segments, each of which had a pair of branched appendages to help it move.

CHAPTER 4 | RHETORICAL PURPOSE QUESTIONS

01 Business

Identifying Problems in Business	
Solutions	Explanation
Watch for deviations from norm	Past experience can identify changes in success
Note behavior	Changes in employee, management, and customer behavior can reveal problems
Study performance of competition	Success of competition can help company stay competitive

1. (B) 2. (B) 3. (A)

Summary: The passage describes ways that managers can identify potential problems in their businesses. First, by recognizing particular trends that may negatively impact the business, managers can avoid problems. Next, they should also be aware of any deviations from the norm. Managers can also counteract potential problems by understanding people's motivations for acting in a certain way. Finally, managers should study the competition for signs of potential problems in their business. Identifying potential problems faced by a company is an intuitive process that cannot be made clear with simple equations.

02 Environmental Science

Genetic Alteration	
Method	Details
Sterile males	Introduce sterile males to a pest population to hinder their reproduction
Crossbreeding	Introduce chemical changes that make plants resistant to pests
	Introduce physical changes to a plant to hinder pest population
Biotechnology	Alter genetic makeup of plant to bolster defense against pests

1. (C) 2. (D) 3. (D)

Summary: The passage discusses how plant genetics has played a significant role in combating pests. Some plants are bred selectively to create heartier, healthier plants. By crossbreeding plants, geneticists can introduce new strains that produce a chemical repellant to protect them from pests. Alternatively, sterile males may be introduced to pest populations to reduce their reproduction. Finally, biotechnology can alter a plant's genes to make it resistant to pests virtually overnight. Plant genetics can help deter pests and avert food shortages.

03 Economics

Behavioral Economics	
Topic	Aspects
Behavioral economists attempt to understand how and why consumers make decisions	People are rational in decision-making to increase utility
	Situation can change how a person perceives or frames certain choice
	Non-rational decisions are made despite knowing otherwise

1. (D) 2. (B) 3. (D)

Summary: Behavioral economics seeks to explain how and why consumers make certain decisions. It was originally closely tied to the field of psychology and attempts to analyze consumer behavior. Behavioral economics acknowledges that consumers are rational in their decisions, although those decisions may not be economically sound. For example, many people give money to charity although they do not benefit materially from it. Also, people make choices based on how certain situations or products are framed. For instance, companies changed the framing of aspirin once it was found to ease a variety of ailments. In addition, consumers sometimes make irrational decisions based on misperceptions, such as the belief that making more money increases happiness. The reality is that once a certain level of wealth is reached, the amount of happiness felt from earning more money diminishes.

04 Business

The Levinson Model
Cycles
Individuals in early adulthood try different careers to discover what they like
Those in mid-adulthood make work primary focus and attempt to excel in workplace
Late adulthood gives people financial security to focus on things outside of career

1. (A) 2. (D) 3. (A)

Summary: By extensively surveying a number of professionals from different occupations, Daniel Levinson identified a series of cycles that individuals go through. The Levinson model, while unable to generalize individuals' ambitions entirely, can describe how they approach their careers throughout their life. For example, in early adulthood, people dabble in a number of different careers and experiences. In their thirties and forties, people tend to pursue a career they find interesting and renew contact with old acquaintances. While the cycles may be somewhat valuable to managers, not everyone follows them, like in the case of Bill Gates, who defies the Levinson model by focusing on one thing throughout his life.

05 Architecture

Differences in Architectural Styles	
Romanesque	Gothic
Semi-circular archways	Pointed archways
Barrel vaults	Ribbed vaults
Long halls, buttresses, no windows	Flying buttresses outside structure, ornate windows

1. (D) 2. (C) 3. (D)

Summary: The passage describes differences between Gothic and Romanesque styles of architecture. Gothic architectural style borrowed several elements from the earlier Romanesque style and became the preferred style for the building of cathedrals and churches. The use of pointed arches makes Gothic architecture appear more vertical, and the use of ribbed vaults allowed for more architectural freedom when spanning square areas. Flying buttresses in Gothic architecture set it apart from the Romanesque. They were an important architectural advance in that their weight distribution allowed for the

insertion of ornate windows. Elements of Gothic architecture appeared in Romanesque buildings long before it became part of the mainstream.

06 Biology

Genetic Therapy		
Steps		
Source of genetic disease is pinpointed by comparing patient's gene against normal gene		
Vector cell engineered to carry repaired genetic material is injected into patient's body		
Problems		
Bodies already exposed to virus as vector may destroy cells carrying new DNA	Patient may feel discomfort at site where vector is introduced	Viral vectors may regain ability to cause disease after entering body

1. (A) 2. (D) 3. (C)

Summary: Genetic therapy directly alters DNA to treat genetic diseases. As doctors cannot prescribe medication or perform surgery to repair genes, the genetic structure must be manipulated directly. To bypass the immune system, scientists create a vector, which contains the corrected genetic data. Because they are pathogenic and spread easily through a person's body, viruses are the most common vectors. A virus is introduced into the patient's body, where it can replicate unhindered by the immune system. While some genetic diseases may be cured through genetic therapy, possibilities such as viral vectors recovering their ability to cause diseases mean that genetic therapy remains a complex and experimental field.

VOCABULARY REVIEW 1

1. (D) 2. (B) 3. (A)
4. (C) 5. (D) 6. (B)
7. (A) 8. (C)
9. (A) 10. (B) 11. (A)
12. (D) 13. (A) 14. (C)
15. (D)
16. hazardous 17. contaminated
18. ailments 19. correlation 20. preventative
21. (A) 22. (D) 23. (E)
24. (C) 25. (B)

MINI TEST 1

01 Environmental Science

1. (A) 2. (D) 3. (A)
4. (C) 5. (B) 6. (B)
7. (C) 8. (D)

02 Business

1. (C) 2. (D) 3. (D)
4. (A) 5. (D) 6. (B)
7. (D) 8. (B)

CHAPTER 5 | VOCABULARY QUESTIONS

01 Literature

The Style of Ernest Hemingway	
Characteristic	Example
Very simple and emotional	Wrote that big emotions do not come from big words
Often included courage and bravery	*The Old Man and the Sea*
Exploration of lives of the elderly	"A Clean, Well-Lighted Place"

1. (C) 2. (A) 3. (B)

Summary: According to the passage, Ernest Hemingway had a unique style of prose. He used simple, terse language that often reflected his own personal experiences. His writing style was free of any wordiness or embellishment. One of his favorite topics was the human condition in times of strife. Through his work, he expressed his belief that any struggle could be overcome with courage, perseverance, honor, and dignity. Hemingway also wrote about loneliness and the elderly in stories such as "A Clean, Well-Lighted Place." The story depicts an old man seeking refuge in a clean, well-lit café as a metaphor of the desire for happiness and order.

02 Marketing

Pretesting vs. Post-Testing		
Pretesting	Both	Post-Testing
• Occurs before ad is broadcast on radio or television • Can help prevent wasted money	• Used in advertising • Attempt to analyze effectiveness of an ad	• Occurs after ad has been broadcast • More accurate

1. (D) 2. (C) 3. (A)

Summary: The passage compares pretesting and post-testing in advertising. Both methods assess advertising in order to most effectively reach consumers. Pretesting occurs before the advertisement is aired. Advertisers ask people whether or not a certain ad conveys its intended message, and they utilize people's responses in testing possible alternative ads. Post-testing occurs after an ad has been aired. Advertisers use feedback from recall tests to determine how memorable a particular advertising technique was. While some favor pre-testing because it can identify problems before an ad is aired, others favor post-testing because it is based on real findings, rather than on a simulated situation.

03 Biology

Sugar Consumption	
Theory	Support
Avoiding foods with sugar will lead to longer life	Sugar consumption increases insulin production, which can cause diabetes and other diseases
	Study showed that lack of glucose in worms led to longer life span
	Stiff sugar-protein bonds can cause organs to deteriorate

1. (C) 2. (C) 3. (C)

Summary: The passage discusses the degenerative effects of sugar on the body. Three key pieces of evidence support this claim. First, while cells in the body require a consistent supply of glucose in order to function optimally, an influx of glucose can cause insulin imbalances and diseases. Second, an experiment done on worms showed that limiting sugar extended their longevity. It is believed that this extended life span could apply to humans. Last, sugar-protein bonds that are produced by sugar consumption affix themselves to veins, ligaments, bones, and arteries, which has a negative effect on organs and leads to the deterioration of bodily functions.

04 Environmental Science

Naegleria fowleri	
Causes	Effect
Stagnant water in residential supplies	Outbreak of *Naegleria fowleri* amoeba
Presence of a bacteria in municipal water supplies	
Increased water temperatures in public recreational areas	

1. (D) 2. (C) 3. (C)

Summary: The passage discusses the outbreak of *Naegleria fowleri,* a rare amoeba that was found in freshwater sources throughout the United States. It attacks the central nervous system, causing coma and death to ensue. The *N. fowleri* outbreak was linked to water stagnation, natural propagation, and sudden changes in the environment. The amoeba can live in stagnant water, even in homes. It can also live in high-volume wells and municipal facilities. Bacteria found in these wells fed the *N. fowleri*, which allowed the amoebas to propagate and invade water supplies. The presence of *N. fowleri* was also found to be linked to environmental disturbances such as disruptions in biodiversity, land clearings, or fluctuations in water temperatures.

05 Astronomy

Jovian Planets		
Definition	Example	Characteristics
Planet that contains gases and ice instead of solid ground	Jupiter	Contains mostly hydrogen and helium, has reddish surface
	Saturn	Has yellow color caused by clouds of frozen ammonia in atmosphere
	Uranus	Has dull blue color caused by methane in atmosphere
	Neptune	High concentration of methane gives bright blue color, weather causes bands

1. (A) 2. (C) 3. (B)

Summary: This passage discusses the Jovian planets, which share similar compositions. Jupiter, Saturn, Uranus, and Neptune consist mainly of hydrogen and helium, with traces of methane, water, and ammonia. Jupiter's magnetic field comes from its thick layer of metallic liquid hydrogen lying under tumultuous clouds of molecular hydrogen. Saturn's dense covering of ammonia clouds render the red colors of its atmosphere invisible. Uranus's atmosphere is relatively featureless, appearing

a solid bluish-green color due to the dominant presence of methane. Neptune has dynamic wind patterns presumably because of its heat, which allows its clouds to rise higher in the atmosphere.

06 Art History

Diego Velázquez's Artistic Career
Stage 1: Studied as an apprentice, learned perspective and proportion
Stage 2: Created portraits of royal family, began to use more vibrant colors to represent royalty
Stage 3: After traveling to Italy, studied Renaissance art and began using realism alongside many green colors
Stage 4: Created his masterpiece, which was typical of Baroque period art

1. (C) 2. (A) 3. (B)

Summary: According to the passage, Diego Velázquez was one of the most prominent Spanish painters in the 17th century. His career went through four stages. The first began as he apprenticed under an artist who believed in the importance of realism. After studying proportion and perspective, Velázquez began producing compositions of kitchen scenes from everyday life. His life later became intertwined with that of the court. He began to use brighter colors in contrast to the austerity of scenes he had painted previously. After spending time in Italy, he returned and began to use more greens and adhered to realism. Last, in a style called *manera abreviada*, Velázquez's style became bolder and sharper.

CHAPTER 6 | REFERENCE QUESTIONS

01 History

Ancient Egyptian Writing		
Problems		
For years, Ancient Egyptian written language remained a mystery to linguists	Rosetta Stone was discovered, containing same edict written in three different languages	By analyzing Coptic and Ancient Greek passages, linguists were able to understand ancient hieroglyphs

1. (D) 2. (A) 3. (A)

Summary: For many years, the meaning of letters engraved on ancient Egyptian ruins was unknown. French explorers found the valuable Rosetta Stone in 1799, which was eventually translated by British scholars. Although its message was relatively mundane, the three languages on the tablet allowed translators to effectively decode the ancient Egyptian hieroglyphs. Its value in providing insight into ancient Egyptian culture resulted in the term "Rosetta stone" becoming an idiom that today refers to a key to a decryption process or puzzle.

02 Environmental Science

Fertilizers	
Types	Function
Nitrogen	Used by the plant to produce chlorophyll
Phosphorous	Aids in transport of energy in the plant
Potassium	Allows plant cells to produce proteins, starches, and sugars

1. (A) 2. (A) 3. (C)

Summary: An important part of maintaining a healthy garden is to ensure that the proper amounts of nutrients are in the soil. Nitrogen, phosphorous, and potassium all play important roles in ensuring plants yield hearty flowers, fruits, and vegetables. Nitrogen helps plants produce chlorophyll, but at high levels can actually hinder the growth of fruits and vegetables. Gardens can also be supplemented with phosphorous, which can maximize the rate of plant growth and maturation. Potassium can also be added to soil, which plays a key role in a plant's cellular functions. Many fertilizers have a combination of all three chemicals, or they can be applied separately.

03 Literature

Magical Realism	
Feature	Explanation
The Other	A character that is outside of society
Evolved duties	Reader must accept alternate reality in order to decode text
History, culture, and geography	Essential to creating altered reality
Dreams and imagination	Used to express authentic subjective experience
Post-structural influence	Non-linear storytelling
Magical element	Forces people to reexamine realities

1. (C) 2. (D) 3. (C)

Summary: The passage discusses a genre of literature called magical realism. The term was first coined by a German art critic. There are six features common to all magical realism works. First, it is always told from the perspective of "the Other." For example, in "The Shape of the Sword," the main character is a traitorous soldier who feels isolated from his peers. Second, magical realism requires readers to involve themselves in evolved duties, which underscores a primary concern of magical realists. Third, it emphasizes history, culture, and geography as a way to portray reality. Fourth, it includes characters' dream sequences and private thoughts as a method of expressing the subjective human experience. Fifth, it is influenced by a post-structuralist style of writing. Finally, all works feature a magical event.

04 Astronomy

Eris and Pluto		
Eris	Both	Pluto
• Larger than Pluto • Grayish color	• Contain methane ice • Eccentric orbits • Tilted orbits	• Mostly made up of nitrogen ice • Reddish color

1. (D) 2. (A) 3. (B)

Summary: The passage discusses dwarf planets. With the establishment of criteria that definitively describe a planet, Pluto is no longer considered a proper planet. In order to be considered a dwarf planet, an object must orbit around the sun, have a spherical shape, not have cleared its orbital neighborhood, and not be a satellite. Dwarf planets have different sizes, but are very similar. For example, Pluto and Eris have a similar physical and chemical composition. Also, while each planet orbits on one plane, Pluto and Eris both have orbits that are slightly inclined.

05 History

The Role of Muckraking in American Society	
Definition	
Journalism that exposes social injustices to promote reform	
Goals	Example
Expand social services and improve conditions	Led to prison reforms, child labor laws, and environmental conservation
Increase public concern and awareness	Meat Inspection Act passed after *The Jungle* was published

1. (C) 2. (B) 3. (D)

Summary: The passage discusses muckraking, which is when journalists expose important social issues to the public. While the writing of muckrakers was sometimes published with sensational titles in the tabloids, their main goals were to publicize social injustices and promote change. Many politicians aligned themselves with causes covered by muckrakers. However, some, namely President Roosevelt, criticized those who exposed some of his political allies, claiming that the muckrakers were biased in their coverage. Although there were some difficulties, the effectiveness of muckraking is obvious by the number of social reforms that occurred, such as the regulation of meat processing in the United States.

06 Theater

Breaking the Fourth Wall	
Definition	
Eliminating division between audience and actors	
Effects	Explanation
Creates humor	Emphasizes important point
Creates element of surprise, which makes things funny	Audience more directly involved and forced to evaluate story in new way

1. (B) 2. (C) 3. (A)

Summary: The passage discusses breaking the fourth wall in theater. The fourth wall is the invisible wall that separates the audience from the actors on the stage. The relationship

between the actors and the audience was often overlooked in drama. Theater conventions in the past were to never break the division between them. In modern drama, breaking the fourth wall breaks up the practice of fictional continuity and forces the audience to become more than mere observers. It can be used to add a comical effect or emphasize a particular view or issue. Breaking the fourth wall has become so common that some critics worry about it losing its effectiveness if it is not used discriminately.

CHAPTER 7 | SENTENCE SIMPLIFICATION QUESTIONS

01 Philosophy

Representative Realism		
Theory	Criticism	Conclusion
People cannot know the world, only perceptions of it through senses	Nothing is certain since senses provide subjective information	People cannot prove objects exist
	Support	Conclusion
	People can agree upon an object's properties by using senses	People can prove object exists

1. (D) 2. (D) 3. (B)

Summary: John Locke developed a philosophy called "representative realism" that was hailed for its method of dealing with difficult issues in a simple way. He believed that people do not perceive the world as it is, but as it appears to their senses. Because senses can be fooled, representative realists feel that differences in subjective perception are corrected by people sharing their perspectives to come to a common idea of an object's properties. Locke developed an explanation of how people deal with the confusion of subjective perception, but critics feel his theory does not prove the existence of our world.

02 History

The Accomplishments of Archimedes	
Accomplishments	Solution
One of the greatest mathematicians of all time	Perfected a method for measuring areas, volumes, and surfaces
Help defend Syracuse	Invented impressive war machines
Practical inventions for the king	Invented irrigation method
Prove a goldsmith cheated the king	Discovered that displacement of water could measure volume and density

1. (A) 2. (C) 3. (A)

Summary: Archimedes was one of the greatest mathematicians in history, albeit relatively unknown. He lived in the city of Syracuse, which was a point of contention between the battling powers of Rome and Carthage. During his lifetime, Archimedes was famous for designing weaponry to defend Syracuse, including a machine used to sink ships by thrusting weights from a wall, and a pump that used a crank and a screw. Historically, he is most known for discovering a method of using water displacement to determine the density of a material, although he was proud of his work that showed the relationship between the surface area and volume of a cylinder circumscribing a sphere.

03 Music History

Scott Joplin
Achievements
Popularized ragtime during his lifetime
Synthesized popular and classical music
Elevated folk music to a classical form

1. (C) 2. (C) 3. (B)

Summary: Scott Joplin developed an original genre of American music in the early 1900s called ragtime, which was a synthesis of African-American folk with classical European music. Joplin hoped ragtime would become as popular as the classical music in which he had trained, but this potential was not realized until long after his death. It was not until the mid-1970s that ragtime finally gained a reputation for beginning the major period of innovation in American music that continues today.

04 Business

Psychological Pricing	
Theories	Support
Pricing strategies work because consumers take shortcuts in calculation	Studies show consumers pay more attention to left-hand side of a price
Important even to sellers who do not use fractional pricing	Could lose sales by not understanding its effects
	Even luxury retailers use psychological pricing to prevent image of discounts
Pricing strategies are effective even though they work against consumers' interests	Consumers do not always make rational decisions
	Subconscious factors play important role in spending decisions

1. (B) 2. (B) 3. (D)

Summary: Psychological pricing is a technique used by marketers to improve sales by using certain numbers in the price of an item. Studies have shown that sales of an item rise disproportionately when the price is displayed in certain ways. By displaying a fractional price that ends in nine or five, such as $4.95, consumers believe the item to be a good deal. Marketers found that prices ending in zeros, like $5.00, gave shoppers the impression that the item was more exclusive, or of higher quality. Though there may be no difference between two items priced so differently, a shopper will buy an item based on subconscious rationalization and self-justification, even if the decision makes no sense.

05 Psychology

Imprinting		
Definition	Theories	Support
Animals have innate tendency to respond to external stimuli	Imprinting is permanent and occurs early in life	Newly hatched birds treat first moving object they see as their mother
		Salmon return to home stream by imprinting its smell
	Imprinting does not have to be permanent and can occur in adults	Some birds eventually mate with own species
		People can learn languages as adults

1. (A) 2. (C) 3. (B)

Summary: The phenomenon of imprinting is a form of learning in which animals react to external stimuli. Konrad Lorenz researched the tendency of geese raised in an incubator to treat him as their mother as opposed to those raised by their natural mother. He noticed that geese raised by humans tended to modify their behavior so dramatically that, later in life, the geese refused to mate with their own species. Lorenz's research led to speculation in problems of human developmental psychology, social pathology, and even philosophy.

06 Literature

The Call of the Wild	
Points	Support
Human mistreatment of dogs	Thornton has good relationship with Buck
	Strength of relationship suggests human-dog relationship is as compelling as call of the wild
Metaphor for human experience	Buck represents humans, because the story is told from his perspective
	Buck's transformation into pack animal is treated as positive
Violence and savagery in novel are not necessarily negative	Return to the primitive is portrayed as highest destiny of both humans and dogs

1. (D) 2. (C) 3. (A)

Summary: Jack London's 1903 novel *The Call of the Wild* is more than an indictment of the savagery with which dogs were treated in the North. The book follows the journey of Buck, a dog taken from a life of leisure and comfort to one of beatings, hard work, and wilderness. *The Call of the Wild* can be read literally as the story of Buck's transformation from a pet to an almost wild animal. However, the novel offers an interesting counterpoint in which the dogs represent human characteristics. Read in this way, *The Call of the Wild* is a compelling story of humans and animals struggling to reach their full, natural potential.

CHAPTER 8 | TEXT INSERTION QUESTIONS

01 Nutrition

Vitamin A	
Problem	Solutions
Many children lack vitamin A, which causes health problems	Give vitamin A supplements
	Fortify foods with vitamin A
	Consume more food sources with vitamin A

1. (C) 2. (B) 3. (D)

Summary: A large percentage of the world's children are deficient in vitamin A, which leads to greater risk of disease, infection, and even blindness. The World Health Organization (WHO) is trying to control the problem through fortification of foods. This will help children derive vitamin A from a greater variety of food sources. By using common foods as a medium for vitamin A, they hope to eradicate the deficiency as a world health problem.

02 Psychology

Control Beliefs	
Categories	Explanation
Pessimistic view	See everything as their fault and do not consider exterior factors
Optimistic view	Believe negative results are out of their control and do not blame themselves

1. (A) 2. (B) 3. (D)

Summary: Psychologists believe people hold pessimistic (negative) or optimistic (positive) views of the level of control they have over circumstances in their lives. People who blame themselves for negative events are considered fatalistic and often feel helpless in difficult situations. Some people ascribe negative events to things outside themselves that can be changed or controlled. These people sometimes think too highly of themselves and risk becoming narcissistic.

03 Biology

Radioisotopes vs. Microelectrodes		
Radioisotopes	Both	Microelectrodes
Release radiation to assess microbial activity	Used to study microbial activity	Uses an electrical current to measure microbial activity
Used in medical tests like the PET scan	Useful in tiny environments	Detects metabolic processes in microbes

1. (C) 2. (A) 3. (B)

Summary: The majority of Earth's living biomass is made up of microscopic organisms called microbes. Detection of these minute life forms is vital to scientists and doctors because of their pathogenic effects in humans and their ability to render an environment uninhabitable. Scientists use radiation and electrical currents to detect and observe microbial activity.

04 Biology

The Boom-and-Bust Cycle		
Definition	Explanation	Examples
Cycle in which populations experience rapid growth and decline	Populations grow when there is plenty of food, leading to increase in predators, which then lowers population	Lemmings thrive in areas with lots of food, but decline once area is exhausted
		Rabbit populations go up when lynx populations are down and go down when lynx populations are up

1. (D) 2. (B) 3. (A)

Summary: Changing environmental conditions cause perpetual boom-and-bust cycles in populations of plants and animals. When conditions are good, a particular species produces large numbers of offspring and the population increases. Conversely, when predation is high, many members of the species die to feed another species. Or if food becomes scarce, the species will have to emigrate from the area. Either of these situations lead to diminution of the species that will last until conditions improve and survival is easier.

05 Medicine

Balance Disorders		
Types	Description	Solution
Vertigo	Feeling of spinning	MRI tests can diagnose balance problems
Disequilibrium	Falling to one side	Doctors may treat disorder associated with balance disorders
Labyrinthitis	Ear disorder that causes balance problems	Some medications can help patients with balance disorders

1. (B) 2. (D) 3. (A)

Summary: Balance is a complex system in which the ears, brain, eyes, and skeleton of a person work in conjunction to maintain the person's orientation to objects around them. When there is a disruption to any part of that system, we say the person is out of equilibrium. Because the system is so complex, doctors have trouble alleviating the discomfort of people when such disruptions occur.

06 Botany

Cycads		
Definition	Theory	Support
Plant known as living fossil that has been around for millions of years	Cycad pollinates not through wind but through bugs	Cycad attracts thrips by using push-pull pollination

1. (B) 2. (D) 3. (A)

Summary: Cycads are primitive plants that have survived on Earth for at least 250 million years. Scientists have been studying the markedly unique way these plants attract thrips, the plants' only pollinators. Thrips feed on pollen until during the plants' reproductive cycle. Then, the cycad emits high levels of beta-myrcene. The chemical reaches levels that thrips cannot survive, so the insects leave the plants, carrying pollen with them. In cooler times, beta-myrcene levels fall, and thrips return to the plants, spreading the pollen among the cycads. This process is viewed as an intermediate evolutionary stage of plants called "push-pull pollination." Over time, plants have evolved their capabilities in order to be sustainable species.

VOCABULARY REVIEW 2

1. (B) 2. (D) 3. (A)
4. (B) 5. (C) 6. (A)
7. (D) 8. (C)
9. (B) 10. (A) 11. (D)
12. (A) 13. (B) 14. (D)
15. (A)
16. prominent 17. perseverance
18. innovation 19. emulate 20. sensational
21. (C) 22. (E)
23. (B) 24. (A) 25. (D)

MINI TEST 2

01 Zoology

1. (C) 2. (A) 3. (B)
4. (B) 5. (C) 6. (B)
7. (C) 8. (A)

02 Linguistics

1. (A) 2. (A) 3. (B)
4. (A) 5. (B) 6. (D)
7. (C) 8. (A)

CHAPTER 9 | PROSE SUMMARY QUESTIONS

01 Zoology

Testing Canine Intelligence	
Round 1	Round 2
Researcher shuffled pots, gave visual cues toward a pot that did not contain ball	Pots controlled with wires, dog given no visual cues
Dogs chose pot to which researcher gave special attention	Dogs usually chose pot that contained ball
Conclusion	
When not influenced by visual cues, dogs can display problem-solving ability	

1. (A, B, D)

Summary: A scientific study in Budapest looked into the intelligence of dogs. Researchers found that dogs are capable of solving simple problems and that they are open to learning from their human masters. They also found limitations in dogs' ability to find a ball when a human tried to hide it from them. The dogs would respond to cues from the human, rather than simply follow the location of the ball. The researchers found evidence that dogs are strikingly similar to human infants in their levels of intelligence, but the studies were not conclusive enough to be certain.

02 Music History

Troubadours and Trouveres		
Definition		
Groups of French musicians that were geographically separate but artistically similar		
Points		
Their work drew upon common tradition that emphasized love and situations concerning love	Made use of instruments in songs more popular	Their songs were not documented extensively; unclear if works were primarily musical or lyrical

1. (B, C, F)

Summary: Troubadours and trouveres were musicians in 12th- and 13th-century Europe. They produced some of the only music of the time that was not liturgical Christian chants. These musicians sang love songs in a way that was more emotional and declamatory than the chants, which focused on worship and verse. The compositions included simple declarations of love, discordant verses on love, and stories of romantic encounters. The differences between a troubadour and a trouvere were regional, mostly related to the languages they spoke. Because the music of these musicians was passed down orally, music historians have difficulty in studying the songs as they were sung. The lyrics remain, but the music itself has been lost.

03 Medicine

The Appendix	
Observations	Conclusion
Researchers found that biofilm allowed colonies of helpful bacteria to live in appendix	Appendix may store helpful bacteria and keep them on reserve for intestinal tract
When intestines are emptied entirely, helpful bacteria quickly re-inhabit tract	

1. (A, B, D)

Summary: The appendix in humans is markedly different from those found in other animals, which makes it difficult to understand the function of the organ. Doctors believe it is helpful in protecting the intestines from harmful bacteria, even though the appendix does not secrete anything into the intestines. Helpful bacteria are known to inhabit the intestines, and doctors have discovered that the appendix releases these into the intestines when helpful bacteria have been entirely flushed out. Research into the appendix is important for developing countries, where intestinal diseases are very common.

04 Psychology

Personality Disorders	
Type	Explanation
Biological	Genetic traits inherited from parents can increase likelihood of personality disorders
Psychological	Early traumatic experiences can make people more prone to personality disorders
Social	Experiences with others, especially during upbringing, can alter personality and lead to personality disorders
Sociocultural	Larger cultural environment can impact development and increase possibility of personality disorders

1. (A, C, D)

Summary: Psychologists have long debated whether people develop personality disorders because of heritable traits passed down from their parents or because of social effects on their personalities. Research has been done exploring the connection between personality disorders and childhood abuse, but the results may have been distorted by the way in which people taking part in the test were selected. However, psychologists concluded that borderline personalities like extreme narcissism may be caused in part by the way a child is raised. Because personality disorders are so broad and difficult to diagnose, any notion of how they are caused will be very hard to prove.

05 Computer Science

Giant Magnetoresistance		
Definition	Impact 1	Impact 2
Magnetic resistance leads to significant electrical resistance	Sensitive sensor heads can be used in drives, shrinking them considerably	GMR basic principles still in use and has greatly impacted size of laptop computers

1. (A, B, F)

Summary: In 1988, Albert Fert and Peter Grünberg discovered a relationship between electricity and magnetism called Giant Magnetoresistance (GMR). Their discovery has caused a lasting shift in the way data is stored on computers. Because GMR allows for far greater sensitivity of disk-reading sensors, the size and bulkiness of hard drives have drastically decreased. Fert and Grünberg found a way to allow data to be stored on magnetic material only a few atoms thick, which allowed engineers to design sensors that could discern such tiny strips of information. This discovery has let computer designers make smaller, more mobile computers than they would otherwise be able to make.

06 Science

Plumpy'nut	
Definition	
An alternative to powdered milk as possible treatment for children suffering from malnutrition	
Advantages	
Plumpy'nut can be produced elsewhere and transported	Mothers can give children Plumpy'nut and treat malnutrition without having to keep children in hospitals for months

1. (A, B, F)

Summary: A product called Plumpy'nut is being used to fight malnutrition in Africa. Before André Briend invented Plumpy'nut in 1999, humanitarian organizations had been using powdered nutrient supplements to remedy the adverse effects of malnutrition. There were two problems with these products: they had to be mixed with clean water in hygienic conditions, and once mixed, they were prone to spoilage. Plumpy'nut is an effective alternative to these products, as it does not spoil and does not require clean water.

CHAPTER 10 TABLE/CHART QUESTIONS

01 Computer Science

Phishing		
Problem	Solutions	Explanation
Phishers steal information of Internet users	Education	Many websites teach computer users how to identify and avoid phishing scams
	Legislation from government	Governments are beginning to convict phishers in order to prevent future scams

1.

Concept	Statements
Education	• Online tutorials help users identify phishing scams. • Users can verify a website using the address bar. • Businesses state that they do not ask for personal information.
Legislation	• Conviction of phishers can prevent future scams. • Phishers are caught and fined or placed in jail.

Summary: With the widespread use of computers for banking and shopping, police and government agencies have noticed increased incidences of phishing. Phishing is a type of fraud, in which the criminal impersonates a trusted company, financial institution, or website in order to steal personal information from computer users. After an individual's banking information has been appropriated, the criminal can use it to make purchases or transfer money into another account. Authorities have warned consumers to disregard emails from companies unless they are sure the email is genuine. The problem is now so great that many countries impose stiff penalties for phishing scams.

02 Business

Mergers	
Types	Explanation
Horizontal	Two companies in same industry combine to form one company
Vertical	Company purchases another company involved in different stage of sales or production
Conglomerate	Companies operating in separate markets combine

1.

Type of Merger	Statements
Horizontal	• Companies having similar products become one enterprise. • A small or giant impact on a sales market may result.
Vertical	• Companies are involved in different aspects of sales or production. • The manufacturing costs for a merged company are reduced.
Conglomerate	• The companies have unrelated products.

Summary: Business mergers are important ways that companies restructure in order to improve their profits, competitiveness, and costs. They may merge with another company in order to better compete against rival companies. Another type of merger involves a company merging with one of its major suppliers, which allows the purchase of materials or supplies at base costs. Sometimes, a company will merge with one in a different business. Mergers allow a business to concentrate on one aspect of its operations while the partner company focuses on its own. In general, the larger the companies that are merging, the greater the effect on market share.

03 Literature

The Early Short Story vs. the Modern Short Story		
Early Short Story	Both	Modern Short Story
• Wealthy, literate audience • Commoners portrayed as buffoons • Characters not developed	• Use of few words	• Available to masses through print • Commoners were worthy characters • Highly developed characters and settings

1.

Time Period	Statements
Pre-19th century	• Written as entertainment for those of high social rank • Generalization of characters
Post-19th century	• Popularized through periodical media • Highly developed settings and characters • Was considered a distinct genre of literature

Summary: The short story has evolved from folk tales and fables to a literary genre accepted by academics. The most important characteristic of a short story is its brevity, which allows an author to publish a complete story at once, rather than in installments, like some novels. One of the first recognized collections of short stories was Geoffrey Chaucer's *The Canterbury Tales*, which told the tales of people taking part in a pilgrimage. Chaucer used short tales to describe people of different socioeconomic groups, usually in a very satirical manner.

04 Psychology

Conflicts	
Types	Explanation
Direct aggressive behavior	Hostility toward another person in conflict
Passive-aggressive behavior	Indirect expression of feelings in conflict
Nonassertive behavior	Avoidance of conflict or accommodation of other person

1.

Conflict Style	Statements
Direct Aggression	• Often humiliates other person • Can negatively impact both people involved
Passive Aggression	• Communicates anger through subtle hints
Nonassertive Behavior	• Sometimes leads to positive outcome • Avoids problem until it goes away

Summary: Psychologists have defined three unsuccessful ways of dealing with conflict. Direct aggression involves a person becoming verbally abusive or showing other signs of hostility. This type of confrontation will often escalate into violence if both parties use direct aggression. In passive-aggressive behavior, a person may behave amiably to the face of the person with whom they have a problem, while they spread rumors and speak negatively behind their back. There is still aggression in passive-aggressive behavior, but the aggressor goes about it in a roundabout way. Nonassertive behavior involves complete avoidance of a problem, or source of conflict. Rather than seeking resolution to a problem, a person might put on the pretense of comfort, or of not being bothered.

05 Anthropology

Political Orders	
Types	Explanation
Bands	Entire community discusses issues and comes to resolution
Tribes	Families deal with small problems; sodalities handle problems affecting whole community
Chiefdoms	Chief has power over many small villages; families deal with smaller problems

1.

Political Order	Statements
Bands	• Adapt political structure to small, unstructured societies • Does not form any system of hierarchical leadership
Tribes	• Create familial organizations that handle major issues
Chiefdoms	• Base governmental organization on central political leaders • Consist of numerous villages connected through a governmental system

Summary: Societies with a small population have a different conception of government than the massive nations of today. Smaller groups of people have an easier time settling a dispute. Groups of people that forage for wild food are usually mobile and rarely have more than 100 individuals. These groups organize into bands, where individuals speak with one another to reach a consensus on a problem. As people began to stay in one location and farm, larger groups lived in one place, and decisions about the welfare of the people grew more difficult. This led to the development of tribes and chiefdoms. Chiefdoms are usually a collection of villages with a single person as leader, whereas tribes are only one village or group.

06 Art History

Black Figure Technique vs. Red Figure Technique		
Black Figure	Both	Red Figure
• Incised designs • Very static, flat figures • Many geometric patterns • Few intricate details • No overlapping	• Popular narrative themes • Contrasting images and background	• Painted designs • Natural figures that showed movement • Few geometric patterns • Many intricate details • Use of overlapping

1.

Technique	Statements
Black Figure Technique	• Designs could not overlap on the pottery • Geometric patterns were a popular design
Red Figure Technique	• Movement and images looked more natural • Profiles did not have to been shown flat • Designs were painted on the vessel

Summary: Much of what we know about ancient Greek culture has been learned from studying two types of pottery. Black figure glazing was a technique used to depict silhouettes of heroes, battles, and mythology in black against a red background. This technique required that shapes to be colored be incised into the clay. Red figure glazing, on the other hand, allowed potters to outline figures and shapes. This technique gave the artists the ability to be more intricate, creating more life-like contours of anatomy. After the advent of the red figure technique, black figure pottery all but disappeared.

VOCABULARY REVIEW 3

1. (D)
2. (B)
3. (A)
4. (D)
5. (A)
6. (C)
7. (C)
8. (A)
9. (A)
10. (B)
11. (C)
12. (B)
13. (A)
14. (D)
15. (C)
16. overwhelmed
17. lasting
18. developing
19. hostility
20. capacity
21. (C)
22. (E)
23. (A)
24. (D)
25. (B)

MINI TEST 3

01 Computer Science

1. (A, C, D)

02 Anthropology

1. (A, B, D)

03 Literature

1.

Type of Literature	Statements
Parody	• Its main purpose is to provide comedy. • Authors choose to imitate a person or circumstance.
Satire	• Writers use it to incite change or reform. • Sarcasm and irony are the main tones used. • The primary purpose of the author is to criticize.

04 Environmental Science

1.

Area	Statements
Transportation and Residential	• Are controlled primarily by individuals • Include vehicles and home appliances
Commercial and Industrial	• Are determined by businesses and managers • Include businesses, schools, and factories • Are working toward more efficient systems

Practice Test

01 Psychology

1. (B) 2. (C) 3. (D)
4. (B) 5. (A) 6. (B)
7. (A) 8. (B) 9. (A)
10.

Type	Statements
Decay	• Is signified by a complete loss of certain memories • Is proven to occur when experiences are not recalled over time
Interference	• Is characterized by either proactive or retroactive memories • Occurs when trying to locate specific, isolated events
Cue Dependent	• Indicates an absence of the necessary cues to retrieve memories

02 Art History

1. (A) 2. (D) 3. (A)
4. (B) 5. (A) 6. (C)
7. (A) 8. (C) 9. (C)
10. (A, B, E)

03 Astronomy

1. (B) 2. (A) 3. (D)
4. (D) 5. (D) 6. (C)
7. (A) 8. (C) 9. (B)
10. (A, C, E)

04 Music

1. (A) 2. (C) 3. (D)
4. (C) 5. (B) 6. (D)
7. (A) 8. (C) 9. (D)
10.

Jazz Era	Statements
1930s	• Music called swing was popular in dance halls and on the radio. • People appreciated the distraction jazz gave from the Depression.
1940s	• A small group of musicians recognized this type of jazz as an emotional, abstract art form. • The harmony had a more minor-key sound. • Bebop, the basis for modern jazz, developed.