**GSAC XXIII**

Head Edited by Will Overman, written by members of Maggie Walker Quizbowl

**Packet 12**

1. **Neutral pion condensation can increase the cooling of these astronomical objects described by the APR equation. A type of degenerate matter referred to as “pasta” is thought to be located in the crust of these objects. Indirect evidence of gravitational waves was provided by a pair of these stars named for (\*)** Hulse and Taylor. The maximum mass of these stars is equal to about 3 solar masses, which is referred to as the TOV limit. These stars are kept from collapsing by the degeneracy pressure of their namesake particles. For 10 points, name these stars that are composed of namesake uncharged, nuclear particles.

ANSWER: **neutron** stars [accept “**pulsars**”]

2. **Versions of these things named for photons are instabilities that can occur in the gas surrounding neutron stars. The Keller-Miksis formula describes the oscillations of these entities in a sound field, and their acoustic resonance is named for Minnaert. The radius of these entities can be found using the Rayleigh-Plesset equation, which is derived from the Navier-Stokes equation under the assumption of spherical symmetry. The (\*)** cavitation of these entities can cause the emission of light in sonoluminescence. For 10 points, name these entities that can be found on top of carbonated sodas.

ANSWER: **bubble**s

3. **This entity launched Operation Cybersnare in 1995, the first ever online undercover sting operation. *The Daily Beast*** **published an article about how 18 members of this group attempted to blackmail Jason Chaffetz while he investigated this group for misconduct.  In April 2012, eleven members of this group were accused of hiring (\*)** prostitutes during the 6th Summit of the Americas. Two senior members of this group crashed a car into the White House complex in 2015. For 10 points, name this US government agency responsible for the protection of select government officials, including the President of the United States.

ANSWER: United States **Secret Service** [accept **USSS**]

4. **In one of this author’s poems, the narrator wonders “why anyone should undertake such a long journey” and lauds a path as “harder than scaling the blue sky”. That poem describes the Shu Roads. Another of this author’s poems describes “quiet night thoughts / in front of my bed” and “bright moonlight” (\*)**. In a poem by this author the narrator details being “married at fourteen...learning to smile at fifteen” in a lamentation of her husband’s five month absence. For 10 points, name this Tang Dynasty Chinese poet whose “The River Merchant’s Wife” was notably translated by Ezra Pound.

ANSWER: **Li** Bai [accept **Li** Po or **Li** Bo]

5. **The Köppen climate classification system uses this term to describe the climate denoted ET. During the Pleistocene epoch, the steppe form of this climate existed throughout central Eurasia. The rapid melting of (\*)** permafrost due to climate change affects the biodiversity of this biome. This biome occurs north of the taiga belt, and its border with forests results in a tree line. Caribou, musk ox, and snowy owls are found in this polar climate. For 10 points, name this treeless, cold biome exemplified by the arctic and Antarctic varieties.

ANSWER: **tundra** [anti-prompt on more specific varieties, like arctic, Antarctic, and alpine]

6. **In one work by this sculptor, two boars are to the left of a deer’s head whose antlers prominently protrude outwards above the central figure. Neptune, who holds a trident, sits across from a woman who represents the earth holding a cornucopia in one of this man’s works. Along with his (\*)** *Nymph de Fontainebleau* and his salt cellar, this man sculpted a work where the main figure holds a sword in his right hand and holds a decapitated head where the innards are spilling out in the other. For 10 points, name this sculptor of *Perseus With The Head of Medusa*.

ANSWER: Benvenuto **Cellini**

7. **Mandaeans believe that Jesus was a false messiah who corrupted the teachings of this figure, whom they revere. This figure denied being Elijah, instead quoting Isaiah. In return for dancing for Herod, Salome demanded this man’s (\*)** beheading. Before his birth, this man leaped in the womb of his mother, Elizabeth, when she was visited by Mary. This man performed a certain sacrament for Jesus in the Jordan River. For 10 points, name this locust-eating wandering prophet.

ANSWER: **John the Baptist** [prompt on “**John**”]

8. **One political cartoon depicting the immediate aftermath of this event shows a figure who has thrown his crown in the trashcan in exchange another larger one. One nation created the *Zollverein* customs union to assert its dominance over Austria in regards to completing this action. This event could have been completed earlier if the (\*)** Frankfurt Convention’s proffered crown had been accepted. Following the Franco-Prussian War, Kaiser Wilhelm I completed this action in the Hall of Mirrors at the Palace of Versailles. For 10 points, name this action, which consisted of Prussia consolidating small states into one large empire in 1871.

ANSWER: **Unification of Germany** [accept obvious equivalents]

9. **Federal Judge Kenesaw Landis fined this man’s business’s Indiana subsidiary $22 million dollars for violating federal railroad tariff laws. This man acquired 22 of his business competitors in a deal known as the Cleveland Massacre. Henry Flagler and this man partnered with Samuel Andrews, the inventor of fractional distillation. (\*)** Ida Tarbell wrote a condemning history that documented this man’s monopolizing of American markets. For 10 points, name this founder of the Standard Oil Trust, a captain of industry who names a university and center in New York City.

ANSWER: **J**ohn Davison **Rockefeller**, Sr. [prompt on partial]

10. **A character in this poem "rode over Connecticut in a glass coach." Its seventh section asks "O thin men of Haddam, / Why do you imagine golden birds?" The speaker of this poem does not know if he prefers "the beauty of inflections" or "the beauty of innuendos." The speaker of the poem recalls an icy window made of "barbaric glass" which the title (\*)** creature's shadow crossed "to and fro." Its first section states "Among twenty snowy mountains / The only moving thing" was the eye of the title avian. For 10 points, name this poem by Wallace Stevens.

Answer: “**Thirteen Ways of Looking at a Blackbird**”

11. **One species of these organisms secretes the compound alpha-amanitin which is a potent inhibitor of RNA polymerase II. Some of these organisms undergo plasmogamy, linking the cytoplasm of two cells without joining the nuclei. Deuteromycota are known as “imperfect” varieties of these organisms since they have no observed means of (\*)** reproduction.They form a symbiotic relationship with vascual plant roots known as mychorrhizae. Most of these organisms form a multicellular feeding structure known as mycelium made out of hyphae. For 10 points name this kingdom which includes yeasts and mushrooms.

ANSWER: **fungi** [accept word forms like “fungus”; prompt on “mushrooms” until plasmogamy]

12. **This man visited Freud’s house once a week as part of the Wednesday Society. Rudolf Dreikurs established societies of and further developed this man’s psychology. Jan Smuts’ holism had a profound impact on this man’s thinking. This man developed the school of individual (\*)** psychology after splitting from Freudian psychoanalysis. This man theorized that firstborn siblings felt dethroned upon the birth of a younger sibling. For 10 points, name this author of *The Neurotic Constitution*, an Austrian psychologist who coined the term “inferiority complex”.

ANSWER: Alfred **Adler**

13. **This god is depicted in his human form in the Tovar and Telleriano-Remensis codices. This god was conceived when the snake-skirted Coatlicue was impregnated by a ball of feathers. To defend his mother, this god killed his 400 brothers and decapitated his sister,** (\*) Coyolxauhqui, making her the goddess of the moon. The Templo Mayor is dedicated to both this god and Tlaloc. For 10 points, name this Aztec war god known as the “left-handed hummingbird.”

ANSWER: **Huitzilopochtli**

14. **One character in this novel has the habit of playing with his pocket knife and sees an ambulance pass by. Three characters in this work write a letter about emigration to Canada. Another character in this work repeatedly imagines that his dead friend Evans is there with him. That character goes with his wife Lucrezia to see (\*)** Dr. Bradshaw, who recommends he be sent to a home in the country. During a party, the title character of this novel stares out the window at her neighbor while pondering the suicide of Septimus Smith. For 10 points, name this novel about a day in the life of Clarissa, by Virginia Woolf.

ANSWER: ***Mrs. Dalloway***

15. **A tiny crucifix is half-hidden by green curtains in the upper left corner of this painting. The commissioner of this painting, Jean de Dinteville, is holding a golden dagger in his right hand. Georges de Selve rests his arm on a shelf covered with a piece of red and black fabric holding a (\*)** quadrant, globe, sundial and other instruments in this painting. A hymnbook, along with a broken lute and a second globe are directly above the *memento mori*, the large distorted skull that lies in between the two figures in this painting. For 10points, name this painting by Hans Holbein the Younger.

ANSWER: *The* ***Ambassadors***

16. **Graham Greene’s pastiche of this novel is a commentary on Catholicism and Communism. In this work, Death rides a wagon driven by hooded oxen and delivers a speech about the wizard Merlin. The title character of this novel consumes the Balsam of Fierabras and promises his (\*)** companion the governorship of an island.  The protagonist of this work is defeated by the Knight of the White Moon and rides the horse Rocinante. The title character of this novel tries to find Dulcinea and is accompanied by Sancho Panza. For 10 points, name this novel in which the title character fights windmills, written by Miguel de Cervantes.

ANSWER: *The Ingenious Gentleman* ***Don Quixote*** *of La Mancha* [or “*El ingenioso hidalgo* ***don Quijote*** *de la Mancha*”]

17. **In high school, this athlete was known as “the Tower from Power”. This athlete was the last man to fight Bruce Lee in the incomplete movie *Game of Death*. While playing for UCLA in 1958, this athlete scratched his cornea, forcing him to wear (\*)** goggles much of his career. This athlete played Roger Murdock in the movie *Airplane!* and after graduating college he changed his name from Lew Alcindor. One of his signature basketball moves was a nearly non-blockable shot called the “Sky-Hook”. For 10 points, name this basketball player who holds the NBA record for most career points.

ANSWER: Kareem **Abdul-Jabbar** [accept Lew **Alcindor** before mention]

18. **Vi asks if anyone knows where Joe is in this man’s one-act opera, Blue Monday. One of this man’s songs has the refrain, “Who could ask for anything more?” Along with “I Got Rhythm,” one work by this composer expresses a feeling of homesickness by introducing the** (\*) blues. The first movement of this composer’s Concerto in F features blasts from the timpani. Another work by this composer premiered at “An Experiment in Modern Music” and opens with a clarinet glissando. For 10 points, name this composer of *An American in Paris* and *Rhapsody in Blue*.

ANSWER: George **Gershwin**

19. **During this conflict, Italo Balbo was killed by friendly fire in Libya. The French Foreign Legion’s active defense during the Battle of Bir Hakeim prolonged the Siege of Tobruk during this conflict. Operation Torch saw the first divisions of US troops enter this conflict. One battle during this conflict prevented the capture of Alexandria, the First Battle of** **(\*)** El Alamein. The Italian 10th Army was reinforced by the *Afrika Korps* during this conflict. For 10 points, name this conflict which saw commanders Bernard Montgomery and Erwin “the Desert Fox” Rommel compete for control of North Africa.

ANSWER: **Second World War** [accept **W**orld **W**ar **II**]

20. **This element is used to couple two alkyl halides in the Wurtz reaction. Titanium tetrachloride is reduced by 4 atoms of this element in the Hunter process. The crystallized form of this element’s sulfate is known as Glauber’s salt. The (\*)** Slovay processis used to create this element’s carbonate on an industrial scale. This element burns bright yellow in a flame test and its bicarbonate is known as baking soda. For 10 points name this element found in table salt along with chlorine, with chemical symbol Na.

ANSWER: **sodium** [accept **Na** before read]

TB. **This man secured victory at the Siege of Alexandria, despite simultaneously fighting a civil war in his home country. After the Lucca Conference, this man had his governorship extended for five years, giving him time to prepare for an invasion of Britain. Outnumbered four to one, this man still achieved victory over (\*)** Vercingetorix at the Battle of Alesia, conquering all of Gaul. His marriage with Cleopatra VII was not recognized, as she was not a Roman, but he still fathered a child with her. For 10 points, name this “dictator in perpetuity” of Rome, whose death is remembered on the Ides of March.

ANSWER: Gaius **J**ulius **Caesar** [prompt on “Caesar”]

1. Name some things about enclaves, for 10 points each:

[10] This enclave within the city of Rome is the smallest sovereign nation in the world. Its sovereign is Pope Francis I, and it is the only nation that is 100% Catholic.

ANSWER: **Vatican** City State

[10] This enclave within South Africa is the largest nation entirely surrounded by another. Its ceremonial monarch is Letsie III, and its capital is Maseru.

ANSWER: Kingdom of **Lesotho**

[10] In May 2015, this nation ratified the one-hundredth amendment to its constitution, which revised an enclave-swap agreement with Bangladesh to simplify their international border.

ANSWER: Republic of **India**

2. This organ is composed of the duodenum, jejunum, and ileum. For 10 points each:

[10] Name this organ that serves as the primary site of nutrient absorption with the help of its villi. This organ precedes its “large” twin, the colon, in your gastrointestinal tract.

ANSWER: **small intestine**

[10] The modification of gliadin proteins by tissue transglutaminase leads to this disease of the small intestine. It causes the truncation of villi and is commonly known as gluten intolerance.

ANSWER: **celiac** disease

[10] Microfold cells are found in the epithelium of these aggregations of lymphatic tissue located in the small intestine.

ANSWER: **Peyer**’s patches

3. Giuseppe Peano found the first example of one of these curves. For 10 points each:

[10] Name these curves whose domain is the unit interval and whose range is the entirety of the unit square.

ANSWER: **space-filling** curve

[10] Space-filling curves are an example of these mathematical objects that exhibit self-similarity. Other examples of them include the Mandelbrot set and the Koch snowflake.

ANSWER: **fractal**s

[10] This fractal is formed by dividing each triangle you see into four equilateral triangles and removing the central one.

ANSWER: **Sierpinski** triangle [or **Sierpinski** gasket]

4. Despite having starred in several successful films, Leonardo DiCaprio has yet to win an Oscar, for 10 points each:

[10] In this 2006 film, DiCaprio plays a Rhodesian gunrunner named Danny Archer, who smuggles the title objects during Sierra Leone’s Civil War.

ANSWER: ***Blood Diamond***

[10] In this 1997 film, a young Leo plays the poor artist Jack Dawson, who falls in love with first-class passenger Rose Bukater. This film’s title vessel sinks after hitting an iceberg.

ANSWER: ***Titanic***

[10] In 2008, DiCaprio starred in this film with his *Titanic* co-star, Kate Winslet. The two play Frank and April Wheeler, who struggle with their ambitions while living in the Connecticut suburbs.

ANSWER: ***Revolutionary Road***

5. The title character of this opera flirts with Donna Elvira, who turns out to be the ex-wife he abandoned. Oops. For 10 points each:

[10] Name this Mozart opera about the title womanizing character aided by his servant Leporello, who attempts to seduce the already engaged Donna Anna.

ANSWER: *The Rake Punished, or* ***Don Giovanni***

[10] In the first act, Don Giovanni kills this father of Donna Anna in a duel. At the end of the opera, a statue of this character and some demons drag Don Giovanni down to Hell.

ANSWER: the **Commendatore**

[10] Mozart also wrote this opera in which Ferrando and Guglielmo disguise themselves as Albanian soldiers to see if their fiancees are faithful. It turns out they're not, leading them to say the title phrase.

ANSWER: ***Cosi fan tutte***

6. This moon’s thick atmosphere rotates faster than its surface and many of its craters show evidence of cryovolcanism. For 10 points each:

[10] Name this moon discovered by Christian Huygens with a mostly nitrogen atmosphere and liquid methane cycles on its surface.

ANSWER: **Titan**

[10] Titan is a moon of this gas giant. The *Cassini* space probe visited the moons, atmosphere, and rings of this planet.

ANSWER: **Saturn**

[10] This other moon of Saturn is the most reflective body in the solar system. Water-ice plumes from the “tiger stripes” of this moon are thought to be the source of Saturn’s E Ring.

ANSWER: **Enceladus**

7. This man gave a speech titled “What to the Slave is the Fourth of July?” in 1852 in Rochester, New York, for 10 points each:

[10] Name this former slave and abolitionist, the publisher of the *North Star* and the author of many autobiographies that narrate his escape from slavery in Maryland.

ANSWER: Frederick **Douglass**

[10] Douglass was the only African American to attend this convention, organized by Elizabeth Cady Stanton and featuring Lucretia Mott.

ANSWER: **Seneca Falls**, New York

[10] The Seneca Falls Convention ultimately culminated in the Declaration of Sentiments, a document which began this political movement, of which Douglass was an ardent supporter.

ANSWER: **women’s suffrage** [accept word equivalents, such as **suffrage for females**]

8. The narrator of this short story goes to Simon Wheeler to ask about Leonidas Smiley. For 10 points each:

[10] Name this short story in which the narrator is instead told about the title creature, Dan’l Webster, having lead put down its throat.

ANSWER: “The **Celebrated Jumping Frog of Calaveras County**” [or “The **Notorious Jumping Frog of Calaveras County**,” or “**Jim Smiley and his Jumping Frog**,” or “The **Jumping Frog**”]

[10] This author of “The Celebrated Jumping Frog of Calaveras County”also wrote The Adventures of Tom Sawyer and Adventures of Huckleberry Finn.

ANSWER: Mark **Twain** [accept Samuel **Clemens**]

[10] Twain wrote a short story about one of these colored animals being stolen in New Jersey en route to the Queen of England. Hills that look like these colored creatures title a Hemingway short story.

ANSWER: **white elephant**s [prompt on “elephants”]

9. This work claims that time and space are recognizable only because of how our faculty of sensibility processes it, for 10 points each:

[10] Name this work, which rejects Hume’s empiricism. This work uses the equation 7 + 5 = 12 to generalize that all pure mathematics is synthetic knowledge derived from *a priori* truths.

ANSWER: ***Critique of Pure Reason***

[10] *Critique of Pure Reason* as well as *Critique of Practical Reason*, are both works by this German philosopher.

ANSWER: Immanuel **Kant**

[10] Kant wrote that the answer to this brief work’s title question was man’s emergence from self-imposed immaturity.

ANSWER: ***What is Enlightenment?***

10. Colonel Herncastle obtained the title object of this novel during the Siege of Seringapatam. For 10 points each:

[10] Name this novel in which Rachel loses the title object at her birthday party and later marries Franklin. Sergeant Cuff tries to identify the thief of the title object, which turns out to be Godfrey Ablewhite.

ANSWER: *The* ***Moonstone***

[10] *The Moonstone* was written by this Victorian author of *No Name* and *The Woman in White*.  Most of his works appeared in serialized version in Dickens’s magazine *All the Year Round*.

ANSWER: Wilkie **Collins**

[10] *The Moonstone* is considered the first novel in the genre named for this profession. Sir Arthur Conan Doyle created the best known practitioner of this profession, Sherlock Holmes.

ANSWER: **detective**

11. This painting hangs alongside two others of the same subject matter, depicting the Martyrdom and Inspiration of that figure, for 10 point each:

[10] Name this depiction of a biblical event in which Jesus beckons towards a tax collector who will become his disciple while a beam of sunlight illuminates that man.

ANSWER: *The* ***Calling of Saint Matthew*** [or ***Vocazione di San Matteo***]

[10] This Baroque artist painted *The Calling of Saint Matthew* for the Contarelli Chapel. He was a formative influence in the Baroque style, and also painted *Judith Beheading Holofernes*.

ANSWER: Michelangelo Merisi da **Caravaggio**

[10] The illumination of St. Matthew in that Caravaggio work exemplifies this Baroque technique, which involves using pronounced *chiaroscuro* to contrast light and dark.

ANSWER: ***tenebrism***

12. This Mesopotamian epic was written during the Third Dynasty of Ur, 10 points each:

[10] Name this first great work of literature, centering on the title figure’s friendship with the wild man Enkidu, and his quest to obtain immortality.

ANSWER: *The* ***Epic of Gilgamesh***

[10] Gilgamesh was a king of this ancient Sumerian city, situated east of the Euphrates river, in present-day Iraq.

ANSWER: **Uruk** [or **Unug**]

[10] Gilgamesh and Enkidu journey to this location to slay the ogre guardian Humbaba. After they kill Humbaba, Enkidu cuts down a tree to fashion into a gate for the temple of Enlil.

ANSWER: **Cedar Forest**

13. Answer some things about gold around the world, for 10 points each:

[10] On this man’s hajj to Mecca, he depreciated the price of gold along his path through his copious spending. This ruler attempted to ameliorate that by borrowing gold in Cairo.

ANSWER: Mansa **Musa** Keita I of Mali

[10] Conquistadors in the Western United States sought this many cities of gold in the New World, according to the account of Estevanico, a slave during the Narvaez Expedition.

ANSWER: **seven**

[10] The British sparked a war with the Ashanti Empire after Sir Frederick Hodgson demanded the Golden one of these, sacred to the Ashanti, as a symbol of submission.

ANSWER: **stool** [or **throne**]

14. Nebuchadnezzar had the Hanging Gardens engineered in this city for his wife Amytis, who felt homesick, for 10 points each:

[10] Name this ancient city located on the Euphrates River.

ANSWER: **Babylon**

[10] This leader of the Babylonians is famous for his namesake legal code, in which he offered harsh reciprocal punishments, like an eye for an eye.

ANSWER: **Hammurabi**

[10] Under Tiglath-Pileser III, this empire eclipsed Babylon and quickly annexed the city. This empire began its fall after the death of Ashurbanipal in 627 BCE.

ANSWER: **Assyrian** Empire

15. A drone hovered over a soccer field with a flag of this country during a match, causing a fight between players from this country and Serbia. For 10 points each:

[10] Name this Balkan nation that, in 1998, backed the Kosovo Liberation Army in its bid for independence. In 2014, it was granted candidate status for EU membership.

ANSWER: Republic of **Albania** [accept Republika e **Shqipërisë**]

[10] This man was elected Prime Minister of Albania in 1944 and continued to rule until his death in 1985. He ushered in a period of communist rule in Albania that lasted until 1992.

ANSWER: Enver Halil **Hoxha**

[10] Hoxha commissioned 750,000 of these structures to be built across his country. During WWI, British soldiers would take cover from “Daisy-Cutters” by hiding in these structures.

ANSWER: **bunkers** [accept obvious equivalents like **bomb shelters**]

16. This value is equal to about 343 meters per second in dry air. For 10 points each:

[10] Name this value for the rate at which acoustic waves travel through the air.

ANSWER: **speed of sound**

[10] This value named for a German physicist is equal to the ratio of an object’s velocity to the local speed of sound.

ANSWER: **Mach** number

[10] The Mach number can be calculated by Bernoulli’s equation using one of these devices named for a Frenchman.

ANSWER: **Pitot** tube

17. Ironically, this piece contains melodies from “We Have Built a Stately House” and “Father of Our Country”, two German beer-hall songs. For 10 points each:

[10] Name this lighthearted piece composed as a begrudged “thank you” to the University of Breslau.

ANSWER: **Academic Festival Overture**

[10] The *Academic Festival Overture* was a piece by this German composer of *A German Requiem*, *Variations and Fugue on a Theme by Handel*, and a namesake lullaby.

ANSWER: Johannes **Brahms**

[10] Brahms also composed 21 of these pieces originally for two pianos that imitated the traditional folk music of the namesake country. The fifth one of these in F-sharp minor is his most famous.

ANSWER: **Hungarian Dances**

18. This book describes a war in heaven between Michael and his angels and the dragon, for 10 points each:

[10] Name this final book of the Bible, which details the second coming of Jesus.

ANSWER: The Book of **Revelation** [do not accept or prompt on “Revelations”]

[10] The third of the four horsemen in Revelation rides a black horse and represents this phenomenon, which one creature predicts will cause elevated wheat and barley prices.

ANSWER: **famine**

[10] Upon the third trumpet in the book, a star with this name fell to the earth and turned a third of earth’s waters bitter and undrinkable.

ANSWER: **wormwood** [accept **apsinthos**]

19. The temple Esagila was dedicated to this deity, who created the heavens and earth from his mother’s corpse, for 10 points each:

[10] Name this deity, whose story is told in the Enuma Elish. This god retook the Tablets of Destiny from Kingu after capturing Tiamat with a net and impaling her stomach with an arrow.

ANSWER: **Marduk** [pronounced *Marutuk*]

[10] This Assyrian deity reigned as chief god over Mesopotamia before Hammurabi established a powerful empire, after which Marduk usurped this god’s role.

ANSWER: **Ashur**

[10] Marduk ruled as the chief deity of the Anunnaki in the mythology of this Mesopotamian city.

ANSWER: **Babylon**

20. Caderousse manages to anger Fernand by drinking to the Pharaon's future captain in this novel. For ten points each:

[10] Name this novel in which Dantes exacts his revenge on Danglars, Mondego, and Villefort.

ANSWER: *The* ***Count of Monte Cristo***

[10] This author of *The Three Musketeers* also wrote *The Count of Monte Cristo*.

ANSWER: Alexandre **Dumas**

[10] This woman is the fiancée of Dantes before he is sent to the Château d’If.

ANSWER: **Mercédès** **Mondego** [accept either]

TB. This theory states that water has a “bent” molecular geometry, for 10 points each:

[10] Name this theory used to predict the geometry of molecules from the configuration of valence electrons.

ANSWER: **V**alence **S**hell **E**lectron **P**air **R**epulsion theory [or “vesper” theory]

[10] This molecular geometry, found in boron trifluoride, is caused by three bonding electron pairs and no lone pairs.

ANSWER: **trigonal planar**

[10] The trigonal planar configuration has this bond angle.

ANSWER: **120**°