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

**Packet 7**

1. **In one scene in this opera, a housemaid named Berta gets frightened by a drunken soldier. One character in this opera is bribed to pretend he is sick with scarlet fever so that Don Alonso may take his place. The main female protagonist of this opera writes a love letter to a (\*)** poor student named Lindoro, who is actually another character in disguise, and she later has a singing lesson with the music teacher Basilio. For 10 points, name this opera in which Bartolo and Count Almaviva quarrel over Rosina, an opera by Gioachino Rossini and the prequel to *The Marriage of Figaro*.

ANSWER: *The* ***Barber of Seville***

**2. British military officer Alfred Knox observed the capture of an important building in this event. Leaders deposed during it were imprisoned in the Peter and Paul Fortress. This event was preceded by an attempted coup during the Kornilov Affair. Mostly bloodless, the only military action to occur was the (\*)** Aurora firing on the Winter Palace. The Treaty of Brest-Litovsk was negotiated with Germany following this event. For 10 points, name this 1917 event that saw the Provisional Government under Kerensky fall to the Bolsheviks under Vladimir Lenin.

ANSWER: **October** Revolution

**3. This value is the smallest quadratic irrational Pisot number. The edges of Kepler triangles increase in length by a geometric progression based on this number. This number can be expressed as a continued fraction consisting only of (\*)** ones. It can be found by solving the quadratic equation x-squared minus x minus one, and it is equal to one plus the square root of five all divided by two. The ratio of successive terms of the Fibonacci sequence approaches this value. For 10 points, name this number, symbolized phi, which often appears in nature and art, equal to about 1.618.

ANSWER: **golden ratio** [accept mean, number, or proportion instead of ratio; accept divine instead of golden, accept “**phi**” before mentioned

4. **Komatsu is the editor of a book published in this year that depicts Little People emerging from a dead, blind goat. Tengo and Aomame travel from this year to a similar one that has a “Q” in its name in Haruki Murakami’s longest novel. Mr. Charrington rents out the room atop his shop to two lovers right before (\*)** Hate Week in this year. O’Brien uses rats to convince an employee of the Ministry of Truth to turn on Julia in this year. For 10 points, name this year in which Winston Smith comes to love Big Brother in a George Orwell novel.   
ANSWER: 19**84** [accept “1Q84” until “Q” is read]

5. **Reinforcements to the victor’s side during this battle came from Head of Elk. The victors of this battle took Redoubts 9 and 10, an effort in part led by Alexander Hamilton. A fleet under Lord Robert Graves failed to relieve the losers at this battle after being defeated by the Admiral De Grasse at the Battle of (\*)** Chesapeake. French general Comte de Rochambeau led the French forces in this battle, who were allied with Continental army. For 10 points, name this battle that resulted in the surrender of General Charles Cornwallis to General George Washington**.**

ANSWER: Battle of **Yorktown** [accept “Siege of **Yorktown**”]

6. **This thinker denotes the title concepts of one of his works as the “oscillating balance wheel” of Christian life. This philosopher points out the “inverted dialectic” of Christianity, a “double vision” that quantifies Christian ideals via their negative counterparts. This man despised (\*)** Hegelianism for its belief in absolute knowledge with the science of logic. According to him, “subjectivity is truth, and truth subjectivity.” He described despair as homologous sin in *The Sickness Unto Death*. For 10 points, name this Danish “Father of Existentialism,” the author of *Fear and Trembling* and *Either/Or*.

ANSWER: Søren **Kierkegaard**

7. **A character in this play throws the ring he gave to a girl into a fireplace after she throws slippers at him. A central character’s father tours England giving lectures about morality after being left money by a millionaire. A character in this play eventually marries (\*)** Freddy Eynsford Hill and was the focus of a wager following her time as a flower girl. This play begins in Covent Garden with Colonel Pickering meeting the two main characters. For 10 points, name this play in which Henry Higgins gives speaking lessons to Eliza Doolittle, by George Bernard Shaw.

ANSWER: ***Pygmalion***

8. **This quarterback won his first playoff game by eliminating a 10 point deficit against the Raiders, aided by the application of the “tuck rule”. He recently appeared in an Under Armour ad where clones of him work out while wearing a shirt with 199 printed on it. In his first two (\*)** Super Bowls, this quarterback led his team to two game-winning field goals against the Rams and Panthers. This quarterback gave his Super Bowl MVP truck to Malcolm Butler. His four-game suspension for Deflategate was overturned. For 10 points, name this current quarterback for the New England Patriots.

ANSWER: Tom **Brady**

9. **Stephen Haggerty found that the soil surrounding *Pandanus candelabrum* always has an abnormally high concentration of this mineral. Round examples of these minerals are often coated with a gum-like material called nyf. Chromium diopside is an indicator of the presence of the primary source of these minerals, which are called (\*)** Kimberlite pipes. It’s very difficult to form this mineral out of graphite, despite them both being allotropes of carbon. For 10 points, name this mineral that has a value of 10 on the Mohs hardness scale.

ANSWER: **diamond**s

10. **Vivaldi wrote a Concerto in C for two of the “natural” variety of these instruments.  Haydn celebrated the first chromatic version of this instrument by composing an E flat concerto for it.  More modern versions of this instrument include (\*)** Dizzy Gillespie’s “bent” one. Chet Baker played this instrument in his ballad “My Funny Valentine”.  This instrument’s complex riffs are featured on “So What”, the opening track for the album “Kind of Blue”.  For 10 points, name this instrument played by Miles Davis and Louis Armstrong.

ANSWER: **trumpet**

11. **Histamine is released from the enterochromaffin-like cells of this organ. The production of a substance found in this organ is decreased by proton pump inhibitors. A compound required for Vitamin B12 synthesis, the intrinsic factor, is released from this organ’s (\*)** parietal cells. Pepsinogen is released by the gastric chief cells of this organ, which releases chyme into the small intestine. For 10 points, name this central organ of the digestive system that breaks down food.   
ANSWER: **stomach**

12. **Steel fortifications at this site were known as the “asparagus bed” or “Stalin’s lawn.” One man attempted to bypass this structure by swimming across the Spree Canal; after his death, newspapers accused him of homosexuality. One politician predicted that this structure would last another 50 or 100 years; that man was** (\*) Erich Honecker. Checkpoint Charlie was a crossing point through this site. At the Brandenburg Gate, Ronald Reagan urged Mikhail Gorbachev to tear down this structure. For 10 points, name this concrete structure that divided the current capital of Germany.

ANSWER: **Berlin Wall**

13. **Walled cities celebrate the Sushan version of this holiday a day later. On this holiday, people must recite the Birkat HaMazon blessing after the seudah. This holiday is typically celebrated on the 14th of Adar.To celebrate this holiday, people send (\*)** mishloach manot baskets to each other which are filled with hamantaschen. Many families attend the Megillah reading in costume and shout when they hear the name of the evil Haman read. For 10 points, name this “Feast of Lots” which celebrates the story of Esther.

ANSWER: **Purim**

14. **In this work, Mitchell Sanders tells the main character about hearing a cocktail party and chamber music. The main character of this work, who once worked at a meatpacking plant removing blood clots from dead pigs, goes out fishing along the U.S.-Canada border with Elroy Berdahl. One character meets up with Martha at a college reunion and is given a replacement (\*)** picture for the one that he burned following the death of Ted Lavender. For 10 points, name this memoir about the author’s experiences in the Vietnam War, the most famous work of Tim O’Brien.

ANSWER: *The* ***Things They Carried***

15. **A person with this last name opposed Ferris Wharton in a state Attorney General race. In the spring of 2014, that man with this last name would announce his candidacy to replace Jack Markell as Governor of Delaware, a plan cut short after he died of (\*)** brain cancer. CNN was mocked for keeping a podium reserved for another man with this last name during the first Democratic presidential debate. That man would later declare “I will not run, but I will not be silent” after announcing he would not run for President. For 10 points, what is this last name of the current Vice President?

ANSWER: **Biden**

16. **In a work by this artist, a girl appears in a blue and white dress next to an inscription claiming she has many parents. In another work that used the same model, this artist depicted a person clad in black observing a nude woman sleeping. His *The Moon and the Earth* depicts an ancient feud between two (\*)** Polynesian spirits. A tree obstructs a group of women from seeing Jacob wrestling with an angel in his *Vision After the Sermo*n. This artist painted a biblical scene in which the background color matches that of the title figure.  For 10 points, name this painter of *Where Do We Come From? What Are We? Where Are We Going?* and *The Yellow Christ*.

ANSWER: Paul **Gauguin**

17. **Mnevis, one aspect of Ra, was said to be one of these creatures. Shiva’s divine mount, Nandi, is one of these animals. Gugalanna was a Sumerian deity that took this form and was sent to punish Gilgamesh; instead, Gilgamesh and Enkidu killed that deity. Heracles captured a (\*)** white one of these creatures for Eurystheus, after Poseidon had sent it to rampage through Crete and seduce Pasiphaë. Theseus ultimately slew that animal and its offspring. The Minotaur is half-man and half-this animal. For 10 points, name this animal, represented in the sky as Taurus.

ANSWER: **bull**s

18. **A character in this work tries to comfort a boy who had rocks thrown at him, but the boy just bites his finger. People are disappointed after realizing a character in this work wasn’t holy enough to prevent his corpse from decaying. In a section of this work, (\*)** Satan says humans should never have been given free will. A character in this novel explains his atheism in the parable of “The Grand Inquisitor.” Katerina’s testimony near the end of this novel leads to the conviction of the wrong man for the murder of Fyodor. Smerdyakov kills the father of Dmitri, Ivan, and Alyosha in, for 10 points, what novel by Fyodor Dostoevsky?

ANSWER: *The* ***Brothers Karamazov*** [or “**Bratya Karamazovy**”]

19. **This constant appears raised to the negative fourth power on one side of the EFE. The square of this constant multiplies the time component of the line element for Minkowski space. Velocity squared is divided by the square of this constant in the definition of the (\*)** Lorentz factor. The index of refraction for a medium is equal to this value in a vacuum divided by this value in the medium. The energy of a particle at rest equals mass times this constant squared according to Einstein. For 10 points, name this constant that represents how fast electromagnetic waves travel in a vacuum.

ANSWER: **speed of light** [accept **c**]

20. **This man appointed John the Cappadocian to manage his empire’s tax collection. Protesters chanted *Nika* after this ruler initially refused to spare two murderers who had belonged to the Blue and Green Demes. Procopius’ (\*)** *Secret History* of this man painted the ruler as a literal demon capable of taking off his own head. In 538 CE, this man’s general Belisarius annexed Rome. For 10 points, name this sixth-century Byzantine emperor who married the escort Theodora and constructed the Hagia Sophia.

ANSWER: **Justinian I**

TB. **Hendrik Verwoerd engineered a series of oppressive laws in this country. P. W. Botha declared a state of emergency in this nation in 1978, after the Soweto Uprising. Riots against the pass laws led to this Sharpeville Massacre in this nation, where** **Desmond** **(\*)** Tutu led the Truth and Reconciliation Commission. This country’s people were legally segregated under the policy of apartheid until 1991. For 10 points, name this African country where Nelson Mandela served as president.

ANSWER: Republic of **South Africa** [or Republiek van **Suid-Afrika**]

1. The BET isotherm accounts for the possible formation of multilayers during this process. For 10 points each:

[10] Name this process in which molecules adhere to the exterior of a solid surface.

ANSWER: **adsorption** [make sure they don’t say “absorption” because that’s different]

[10] Adsorption is often described using an isotherm named for this man, which relates the partial pressure of the gas to the fractional occupancy of the surface. His isotherm assumes that only monolayers are formed.

ANSWER: Irving **Langmuir**

[10] The word “isotherm” in Langmuir isotherm refers to zero change in this quantity during adsorption. Scientists measure this quantity on either the Celsius or Kelvin scales.

ANSWER: **temperature**

2. During Tishrei, several holidays are celebrated. For 10 points each, answer some questions about the month’s happenings:

[10] This Tishrei holiday traditionally sees the waving of the Four Species and the construction of a temporary dwelling, where celebrants consume meals.

ANSWER: **Sukkot** [accept **Sukkos**, **Feast of Booths**]

[10] Prior to Sukkot, this Jewish day of atonement is celebrated, which includes a 25-hour fast. This holiday is concluded with the Ne’lia prayer service.

ANSWER: **Yom Kippur**

[10] During the Mincha, or afternoon prayer of Yom Kippur, this Tanakh book is read. It contains the story of the title man’s trials in the belly of a whale.

ANSWER: Book of **Jonah**

3. All of these molecules have NH2 and COOH groups and are identified by their unique side chains. For 10 points each:

[10] Name these molecules that come in 20 essential varieties to humans, and serve as the building blocks of proteins.

ANSWER: **amino acid**s

[10] Amino acids are connected into chains by this type of covalent bond.

ANSWER: **peptide** bond [prompt on “amine” bond]

[10] By convention, the sequences of proteins and polypeptides are ordered from what terminus to what other terminus? Use their one letter abbreviation and name them in order.

ANSWER: **N**-terminus to **C**-terminus [do not accept other answers, including “C-terminus to N-terminus]

4. The speaker of this poem states that “The armies of those I love engirth me and I engirth them.” For 10 points each:

[10] Name this poem, a celebration of the human form.

ANSWER: “**I Sing the Body Electric**”

[10] “I Sing the Body Electric,” like the thematically similar “Song of Myself,” is included in this poet’s collection *Leaves of Grass*.

ANSWER: Walt **Whitman**

[10] In this Whitman poem, the proofs and figures presented in the lecture room make the speaker tired and sick, so he goes to look “up in perfect silence at the stars.”

ANSWER: “**When I Heard the Learn'd Astronomer**”

5. Name some things about Greek heroes, for 10 points each:

[10] This man saved the princess Andromeda from Cetus by killing that sea monster while invisible. He slew Medusa by gazing only at her reflection.

ANSWER: **Perseus**

[10] This other Greek hero slew the Harpies to help out the blind prophet Phineas. With the aid of Medea, he was successful in the Argonauts’ quest to find the Golden Fleece.

ANSWER: **Jason**

[10] This centaur taught both Perseus and Jason, as well as numerous other heroes.

ANSWER: **Chiron**

6. This composition in D-flat major was inspired by a small dog chasing its tail. For 10 points each:

[10] Name this piano piece in 3/4 time that usually takes between 1½ and 2½ minutes to play, despite its name.

ANSWER: ***Minute Waltz***

[10] This Polish composer wrote the *Minute Waltz*, as well as *Fantaisie-Impromptu* and numerous études, nocturnes, and preludes.

ANSWER: Frédéric **Chopin**

[10] Chopin also composed nearly 70 of these traditional dances from his home country. These compositions were mostly published in groups of four and contained lots of measure repetition.

ANSWER: **mazurka**s

7. General Ne Win ushered in a period of military rule in this country from 1962 until 2010, when it hosted its first national elections. For 10 points each:

[10] Name this Southeast Asian country, formerly known as Burma.

ANSWER: Republic of the Union of **Myanmar**

[10] In 2015, this woman led the NLD party to claim a majority of seats in Myanmar’s parliament. She won the Nobel Peace Prize in 1991, two years after being placed under house arrest.

ANSWER: Aung San **Suu Kyi**

[10] This Muslim minority group in Myanmar was banned from voting in the 2015 elections. Ashin Wirathu was dubbed the “Buddhist bin Laden” for encouraging his followers to persecute members of this minority.

ANSWER: **Rohingya** People

8. This region is the traditional homeland of the Khitan and Jurchen people. For 10 points each:

[10] Name this region, which was invaded after the 1932 Mukden Incident. After that invasion’s success, it became puppet state ruled by Puyi.

ANSWER: **Manchuria** [accept **Manchukuo**]

[10] From Manchuria, the Japanese would invade the Republic of China in a 1937 war that included this event, which involved the massacre and rape of between 40,000 and 300,000 citizens of the China’s capital.

ANSWER: **Rape of Nanking** [accept equivalents such asthe **Nanking Massacre**]

[10] Just before the Rape of Nanking this gunboat evacuated 14 Americans from the capital, but it was subsequently sunk by Japanese Naval aircraft in the Yangtze River.

ANSWER: U.S.S. **Panay**

9. In a painting by this artist, a bowl of oranges and a glass of flowers sit in front of the central figure, who stands before a mirror in a namesake Paris nightclub. For 10 points each:

[10] What artist painted *Bar at the Folies-Bergère*?

ANSWER: Édouard **Manet** [do not accept “Monet”; ask teams to spell it if necessary]

[10] Édouard Manet and Jean-François Millet were a part of this French school of Realism, which took its name from a village near the Forest of Fontainebleau. Prominent features of this school include its tonal qualities and loose brushwork.

ANSWER: **Barbizon** School

[10] This Millet work portrays three peasant women performing the title action to a field of wheat. It was received poorly by the French upper class.

ANSWER: *The* ***Gleaners*** [or *Des* ***glaneuses***]

10. His Presidency saw the Great Railroad Strike, as well as the passing of the Dawes Act in order to stimulate the assimilation of Native Americans into US society. For 10 points each:

[10] Name this President of the United States, who won the Election of 1876 after Congress awarded him 20 contested electoral votes.

ANSWER: Rutherford Birchard **Hayes**

[10] Hayes ended this policy in the South after the Compromise of 1877. This namesake era began in response to the devastation the Civil War caused to the South.

ANSWER: **Reconstruction**

[10] This Northern Democrat lost the election to Hayes in 1876, despite having a majority of the popular vote. He was responsible for the impeachment of several Tweed Ring judges in the 1870s.

ANSWER: Samuel Jones **Tilden**

11. Name some things about Niels Henrik Abel. For 10 points each:

[10] Groups named for Abel have this property. It can be stated as: if A times B equals C, then B times A equals C, since multiplication is both associative and has this property.

ANSWER: **commutative** [accept “**commutativity**” and other words forms like “it commutes”]

[10] Abel and Ruffini showed that polynomials don’t have a general algebraic solution when they are of this degree or higher.

ANSWER: **five** [accept “**quintic**”]

[10] Abel’s identity can be used to show that the Wronskian is either always or never equal to zero along the given interval. The Wronskian is used to evaluate the linear independence of solutions to these things, which relate functions to their derivatives.

ANSWER: **differential equation** [accept “**diff eq**” or obvious equivalents]

12. *A Charlie Brown Christmas* ends with the characters standing around the small tree singing this Christmas carol. For 10 points each:

[10] Name this Christmas carol that claims "Glory to the new-born King; Peace on earth, and mercy mild, God and sinners reconciled!”

ANSWER: “**Hark! The Herald Angels Sing**”

[10] This all-female group from Ireland, formed in 2004, performs all your favorite Christmas carols. They also record traditional Irish tunes and their most recent album is titled *Destiny*.

ANSWER: **Celtic Woman**

[10] This American singer recorded the popular album *Merry Christmas*, including the single “All I Want for Christmas is You.” She recently got divorced from Nick Cannon.

ANSWER: Mariah **Carey**

13. In this play, the Father encounters the Stepdaughter in a brothel. For 10 points each:

[10] Name this play in which the Director’s rehearsal is interrupted by the title figures.

ANSWER: ***Six Characters in Search of An Author***

[10] This character from *Six Characters in Search of An Author* shoots himself with a revolver at its end.

ANSWER: The **Boy**

[10] This author of *Six Characters in Search of an Author* wrote about a man who falls from a horse and becomes convinced he’s a Holy Roman Emperor in *Henry IV*.

ANSWER: Luigi **Pirandello**

14. This man founded the group f/64 [“f stop 64”] and took the photograph *El Capitan*. For 10 points each:

[10] Name this American photographer who documented Japanese-American internment at Manzanar. He took a lot of photographs at Yosemite National Park.

ANSWER: Ansel **Adams**

[10] Adams took a photograph of Half Dome and this object as well as a photograph of this object in Hernandez, New Mexico.

ANSWER: the **moon**

[10] Ansel Adams and Fred Archer developed this technique for determining optimal film exposure and development using eleven varying regions of brightness.

ANSWER: **Zone System**

15. Name some things pertaining to the many Treaties of Paris, for 10 points each:

[10] The Treaty of Paris of 1815 brought this man’s wars to a close. His many exploits included the Peninsular War and a land-borne invasion of Russia.

ANSWER: **Napoleon**Bonaparte **I** [prompt on “**Napoleon**”]

[10] The Treaty of Paris of 1783 ended the fourth war between this nation and the United Kingdom, fought over trading rights. This nation was a democracy with a stadtholder at its head.

ANSWER: The **Dutch Republic** [accept the Republic of the Seven United **Netherlands**]

[10] Louis XIII signed the Treaty of Paris of 1626 with this fortified Huguenot city following the recapture of Ré Island.

ANSWER: **La Rochelle**

16. John the Savage was the only man born to Londoners without the use of this process. For 10 points each:

[10] This process makes ninety-six perfectly formed human embryos from one egg. This process was used extensively at the London Hatchery.

ANSWER: **Bokanovsky**'sProcess

[10] Bokanovsky’s Process is used in this novel to produce human beings in order to fill predetermined castes. In this novel, citizens of the World State consume soma as an intoxicant.

ANSWER: ***Brave New World***

[10] This British author wrote *Brave New World*, as well as *Point Counter Point*.

ANSWER: Aldous **Huxley**

17. Free body diagrams are often drawn when working with this law. For 10 points each:

[10] Name this law which states that force equals mass times acceleration.

ANSWER: Newton’s **second** law

[10] Another way of expressing Newton’s second law is that force equals the time derivative of this quantity.

ANSWER: **momentum** [accept “**p**”]

[10] An analogue of Newton’s second law in this field of physics is Ehrenfest’s theorem, which relates the expectation values of the momentum operator to this basic operator.

ANSWER: **position** operator [accept “**x**”]

18. Its female counterpart is named after Electra. For 10 points each:

[10] Name this theorized unconscious sexual attraction by boys towards their mother, creating antipathy towards the father figure.

ANSWER: **Oedipus complex** [or **Oedipal complex**]

[10] This 1927 book argued that Freud’s Oedipus complex was not universal as boys in the title group were raised by their maternal uncles.

ANSWER: ***Sex and Repression in Savage Society***

[10] This Polish anthropologist wrote *Sex and Repression in Savage Society*, as well as *Argonauts of the West Pacific,* in which he described the kula ring.

ANSWER: Bronislaw **Malinowski**

19. Answer some things about a novel in which Maureen and Bamford flee and cling to their battery-powered radio in hopes of rescue while housed in a bucolic village. For 10 points each:

[10] This character, formerly a servant of the Smales family, shelters them in his home despite his wife’s objections. The Smales are labeled as this character’s people.

ANSWER: **July**

[10] In addition to writing *July’s People*, this author’s *The Burger’s Daughter* describes Rosa’s acceptance of her father’s involvement in the South African Communist Party.

ANSWER:  Nadine **Gordimer**

[10] Both *The Burger’s Daughter* and *July’s People* were banned by the South African government due to Gordimer’s criticism of this South African policy of segregation.

ANSWER: **apartheid**

20. Although he had three wives, this man is thought to have been in a homosexual relationship with his general Hephaestion. For 10 points each:

[10] Name this Macedonian king who expanded Hellenistic culture throughout the known world, conquering both Persia and Northern India.

ANSWER: **Alexander the Great** [accept **Alexander III** of Macedon]

[10] In 332 BCE, Alexander captured Tyre, the capital of this civilization. Carthage began as one of their trading posts, and its alphabet became the basis of Ancient Greek and Roman script.

ANSWER: **Phoenician** Empire [accept **Phoenicia**]

[10] Cleopatra VII was the final pharaoh of this kingdom, which was founded after Alexander’s death by one of his generals. It was annexed by Rome in 30 BCE.

ANSWER: **Ptolemaic** Kingdom

Extra. The speaker of this poem complains “Water, water, everywhere / Nor any drop to drink” and describes how “The deathfire danced at night” and “slimy things did crawl with legs”. For 10 points each:

[10] Name this poem in which the speaker tells the Wedding Guest “He prayeth well, who loveth well / Both man and bird and beast” after shooting an albatross.

ANSWER: *The* ***Rime of the Ancient Mariner***

[10] *The Rime of the Ancient Mariner* is by this English poet who collaborated on *Lyrical Ballads* with William Wordsworth.

ANSWER: Samuel Taylor **Coleridge**

[10] Coleridge also wrote, but did not finish, this narrative poem in which the title character encounters an apparently supernatural girl named Geraldine.

ANSWER: ***Christabel***