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

**Packet 3**

1. **Isabel Allende claimed that this event caused her to gain a country 28 years after she lost a different one in her memoir *My Invented Country*. Horst falls asleep watching Monday Night Football the night before this event in Thomas Pynchon’s novel *Bleeding Edge*. Keith is a lawyer who survives this event in Don DeLillo's novel (\*)** *Falling Man*. A key is discovered in a vase that was owned by a victim of this event in a 2005 Jonathan Foer novel. For 10 points, Oskar’s father in *Extremely Loud and Incredibly Close* died during what attack on the World Trade Center?

ANSWER: **September 11**, 2001 attacks [accept “**9/11**” and other equivalent answers]

2. **An image of this goddess with her son became a model for depictions of the Virgin Mary holding Jesus. This goddess is depicted as a human woman wearing a throne-shaped crown.** **Because he had been bitten by a snake whose venom only she could cure, this goddess gained power over (\*)** Ra. This figure found all but one of the pieces of her dismemberedhusband and replaced the part that had been eaten by a fish with a golden phallus. For 10 points, name this first daughter of Geb and Nut, the wife of Osiris and mother of Horus.

ANSWER: **Isis** [accept **Aset** and **Iset**]

3. **This author’s last novel concerns a maid who had an affair with a nobleman and is later framed for murder. The protagonist of a novella by this author stabs his wife after finding her in bed with a violinist. This author of (\*)** *The Kreutzer Sonata* wrote a novella about a magistrate who falls while hanging curtains. The title character of a novel by this man jumps in front of a train after having an affair with Count Vronsky. For 10 points, name this Russian author of *The Death of Ivan Ilyich* and *Anna Karenina*.

ANSWER: Leo **Tolstoy**

4. **In the shortest movement of this work, the composer uses the hemiola technique for two rhythms in two different keys, B-flat and E. The hymn “I Vow to Thee, My Country” is used in one movement of this work while an ostinato march in (\*)** 5/4 time that crescendos into a fort-iss-iss-iss-imo appears in a movement subtitled “Bringer of War”. For 10 points, name this suite by Gustav Holst that includes movements about the title objects, such as “Mars” and “Jupiter”.

ANSWER: *The* ***Planets***, Opus 32

5. **A group from this movement believed that Jesus had returned to Earth in 70 AD, and that their leader had been chosen by God to found His Kingdom on Earth. That group was the Oneida Community. Mother Ann Lee headed the Shakers during this movement. Charles Finney dubbed New York the (\*)** “Burned-Over” district during this movement due to the amount of religious revival in the rural parts of the state. For 10 points, name this 1800s evangelical Protestant movement that saw the creation of the Church of Latter Day Saints by Joseph Smith.

ANSWER: **Second Great Awakening** [prompt on partial]

**6. This philosopher argued that there can only be one substance because, via an ontological argument, a single substance must have both the attributes of “thinking” and “extension”. This thinker’s idea of *mens una* resembles Rousseau’s concept of the general will. The Esnoga issued a *cherem* on this man for his assertion that (\*)** Ezra wrote the Torah. He posited a Hobbesian view on the state of nature and argued that a democracy was the best form of government in his *Tractatus Theologico-Politicus*. For 10 points, name this Dutch Jewish author of *Ethics*.

ANSWER: Baruch **Spinoza** [accept Benedito de **Espinosa** or Benedict de **Spinoza**]

7. **Angelina Jolie spoke in favor of protecting these people in a recent UN hearing. Victor Orban ordered the construction of a wall to prevent these people from entering his country. A US mayor wrote a letter in favor of (\*)** interning these people in camps if they were to arrive in the United States. A picture of a three-year-old boy washing up dead on a Turkish beach caused outrage over the treatment of these people. For 10 points, name this group of 4,000,000 people fleeing a civil war in a namesake Middle Eastern country.

ANSWER: **Syrian refugees** [accept obvious equivalents]

8. **Photo-CIDNP [“kid-nip”] uses the detection of these molecules to study the surface structure of proteins. Spin Trapping and ESR are used to study these molecules. Homolytic cleavage of a chlorine-chlorine bond leads to two of these species. The dissociation of CFCs by (\*)** UV light leads to the production of these molecules. One theory claims that aging may be partly due to the buildup of these molecules that are neutralized with antioxidants. For 10 points, name these molecules that have an unpaired electron.

ANSWER: free **radicals**

9. **One poem of this type urges its reader not to cope with the title condition by going to the Lethe or taking the “ruby grape of Proserpine”. Another of these works addresses the title time as the “season of mists and mellow fruitfulness.” In another poem of this type, the narrator tells the title (\*)** bird that it is not “born for death.” Another of these poems claims that “Heard melodies are sweet, but those unheard / Are sweeter.” For 10 points, name this type of poem by John Keats, examples of which are about a nightingale and a Grecian urn.

ANSWER: **Odes** [accept more specific answers, like “John Keats’s 1819 **Odes**”]

10. **A faint arch and a poster can be seen in the background of this work. The lower right of this painting features an open book with frayed edges. A man in the center of this painting had just committed a robbery prior to being subjected to the (\*)** titular action. The title figure of this painting holds forceps and is depicted explaining the muscle movement of the arm. A group of onlookers in black circle around a body in, for 10 points, what 1632 painting by Rembrandt depicting a medical scene?

ANSWER: *The* ***Anatomy Lesson*** *of Dr. Nicolaes Tulp*

11. **In this religion, people become “horses” when they are “mounted,” or possessed. Members of this religion believe that the “gros bon ange” and “ti bon ange” are the components of the soul. The priest and priestesses of this religion, (\*)** Houngans and Mambos, protect others from spells. Followers of this religion worship loa such as Papa Legba and the Marasa twins, because their creator god, Bondye, cannot be reached through prayer. For 10 points, name this religion practiced in Haiti.

ANSWER: **Voodoo**

12. **In this novel, a mechanic has his spinal column shattered by a bullet while trying to sneak into a bathroom. An unidentified gunshot goes off in this work, killing a heavily tattooed man and causing a stream of blood to flow across the town. At the end of this novel, the epigraph “the first of the (\*)** line is tied to a tree and the last is being eaten by ants” is decoded from Melquiades’ parchments shortly before a wind wipes away Macondo. For 10 points, name this novel that chronicles the impact of time and incest on the Buendia family, by Gabriel Garcia Marquez.

ANSWER: ***One Hundred Years of Solitude*** [accept ***A Hundred Years of Solitude*** and ***Cien Años de Soledad***]

13. **A chancellor of this dynasty wrote the encyclopedic text *Lüshi Chunqiu*. An emperor of this dynasty was nearly assassinated by a lute player named Gao Jianli. Lord Shang Yang instituted reforms during this dynasty. Assisted by chancellor Li Si, the first emperor of this dynasty organized massive** **(\*)** book-burnings and scholar-buryings. That emperor of this dynasty also began construction on the Great Wall and was buried with his Terracotta Army. For 10 points, name this Chinese dynasty founded by Emperor Shi Huangdi, which followed the Warring States period.

ANSWER: **Qin** dynasty [or **Qín** Cháo]

14. **The Alfven time of waves in these substances is equal to the inner radius of a device used to contain them divided by the Alfven velocity. Rapid oscillations of electron density in these substances are known as (\*)** Langmuir waves. The extent to which charge carriers can have electrostatic effects in these substances is known as the Debye length. Magnetic fields are used to confine these substances in a toroidal shape in tokamaks. For 10 points, name these ionized substances known as the fourth state of matter.

ANSWER: **plasma**s

15. **The Fawcett commission protested involvement in this war. It was discovered that partisan fighters in this war had been gifted German Mauser rifles, which sparked Anglo-Germanic tensions. While the defenders during this conflict managed to repulse the British at the Battle of (\*)** Spion Kop, the loss of both the Transvaal and Orange Free State marked the inevitable end to this conflict. For 10 points, name this conflict that saw British regulars use scorched earth tactics, as well as concentration camps in order to defeat the Dutch Afrikaners.

ANSWER: **Second Boer War** [prompt on “Boer War”]

16. **This object’s Sputnik Planum contains evidence of recent geological activity. This object’s color is theorized to be a result of tholins created from lyman-alpha rays interacting with methane. The Tombaugh Regio on this body has received much acclaim for its resemblance to a (\*)** heart. Percival Lowell initiated the search for this object referring to it as Planet X. This object was visited by the New Horizon space probe in July of 2015. For 10 points, name this dwarf planet that forms a binary system with its moon Charon.

ANSWER: **Pluto**

17. **One character in this opera agrees to return home with Micaëla once he learns that his mother is sick. In its first act, a female character goes to prison and seduces her guard into letting her go in a *seguidilla*. Later in this opera, that character and her companions Frasquita and Mercédès entertain (\*)** officers at LillasPastia's Inn. Another character in this opera introduces himself in the "Toreador Song" and falls for the title character who sings about love in "Habanera". For 10 points, name this opera set in Spain about the title gypsy girl, by George Bizet.

ANSWER: ***Carmen***

18. **The main character of this film claims that a painting by a Vietnam veteran is a rip off of Homer.  That amateur painter tells the protagonist of this film that he doesn’t know what it smells like in the Sistine chapel. The protagonist of this film asks (\*)** “how do you like them apples?” while shoving Skylar’s phone number on the window of a Dunkin Donuts. The protagonist of this film is discovered solving a math problem on a blackboard in the hallway. For 10 points, name this film written by Ben Affleck and Matt Damon about a genius janitor working at MIT.

ANSWER: ***Good Will Hunting***

19. **A charge by the British Heavy Cavalry down Lord Hill during this battle led to the near destruction of the 2nd Scottish Dragoons. The Rothschild family learned the outcome of this battle via carrier pigeon. The loser of this battle attempted to save his fortunes by sending in his elite Old Guard. During this battle, (\*)** Gebhard von Blücher’s Prussian army assisted the Duke of Wellington’s forces and pushed back the assault. For 10 points, name this final battle of the Napoleonic Wars, after which the Great Powers exiled Napoleon to St. Helena.

ANSWER: Battle of **Waterloo**

20. **During inflammation, these cells form stacks called rouleaux. Nuclear remnants called Howell-Jolly bodies in these cells can indicate that the organ that destroys them is failing. High levels of these cells cause polycythemia, and young examples of them are called (\*)** reticulocytes. The Coombs test is used to determine whether their count is low, and a valine to glutamic acid point mutation in these cells causes a notable condition. These cells don’t have a nucleus and are affected in sickle-cell anemia. For 10 points, name these cells that contain hemoglobin and carry oxygen.

ANSWER: **red blood** cells [accept “**erythrocytes**”]

TB. **One character’s breathing is mocked in this work with the phrase “sucks to your ass-mar.” A pair of twins finds a downed fighter pilot in this novel. A pair of glasses, the only means by which to start a fire, are stolen and broken in this novel. Characters in this novel chant “Kill the (\*)** pig. Cut her throat. Bash her in” while circling around another character. Roger shatters the conch after Piggy is crushed by boulders in this novel. Ralph and Jack struggle for power in, for 10 points, what work by William Golding about a stranded group of British schoolboys on an island?

ANSWER: ***Lord of the Flies***

1. Although Albert Einstein petitioned in favor of this project, the president’s initial response was skeptical. For 10 points each:

[10] Name this research initiative kept secret even from the US Vice-President, and whose first successful trial was named the Trinity test.

ANSWER: **Manhattan Project**

[10] This was the first city ever to be hit by a nuclear bomb. The B-29 *Enola Gay* was responsible for the dropping of the uranium “Little Boy” bomb on this Japanese city.

ANSWER: **Hiroshima**

[10] This was the intended target city for the “Fat Man” plutonium bomb. However, the B-29 *Bocks Car* mistakenly flew 100 miles southwest of this city and hit Nagasaki instead.

ANSWER: **Kokura**

2. This artist depicted boy holding an American flag while wearing “God Bless America” and “Bomb Hanoi” buttons. For 10 points each:

[10] Name this artist who depicted a pair of *Identical Twins* in Roselle, New Jersey.

ANSWER: Diane **Arbus**

[10] Many of Arbus’s photographs were taken in this city, including her depiction of a boy holding a toy hand grenade in Central Park.

ANSWER: **New York** City

[10] Arbus’s photograph of the identical twin sisters provided the inspiration for Delbert Grady’s dead children in this Stanley Kubrick film.

ANSWER: *The* ***Shining***

3. The beginning of this event is marked by a weakening of the Walker circulation. For 10 points each:

[10] Name this phenomenon with a Spanish name, in which the sea surface temperature of the central and eastern Pacific Ocean in the Southern hemisphere is warmer than normal.

ANSWER: **El Niño** [accept “**ENSO**” but not “La Niña”]

[10] This other phenomenon builds up over the Indian Ocean and moves out across the Pacific causing a break in the monsoon season. This doubly eponymous phenomenon is sometimes called the 30-60 day oscillation.

ANSWER: **Madden-Julian** Oscillation [accept “**MJO**”]

[10] While it can increase cyclone activity in the Pacific, El Niño’s contribution to vertical wind shear can decrease the strength and formation of these Atlantic storms that are categorized from 1 to 5.

ANSWER: **hurricane**s

4. Name some European rivers, for 10 points each:

[10] Lake Constance is located on this river. Major cities on this river include Düsseldorf, Cologne, and Strasbourg.

ANSWER: **Rhine**

[10] This eastern river starts in the Black Forest and flows out to the Black Sea. This river splits an Eastern European capital into its constituents, Buda and Pest.

ANSWER: **Danube**

[10] Pont Neuf and Pont des Arts cross this river flowing through the French capital, Paris.

ANSWER: **Seine**

5. This point is the temperature at which atmospheric pressure equals vapor pressure. For 10 points each:

[10] Name this temperature at which a liquid transitions to a gas, equal to 100 degrees Celsius for water.

ANSWER: **boiling point**

[10] The elevation of the boiling point of a substance due to the addition of another compound is one of these properties, meaning it’s dependent on the amount of the solute, but not its identity.

ANSWER: **colligative** properties

[10] This other colligative property can be calculated using the Morse equation, which states that it equals the van’t Hoff factor times molarity times RT.

ANSWER: **osmotic pressure**

6. Robert Schumann composed a solo piece for this instrument titled *Fantasie in C* for his wife Clara. For 10 points each:

[10] Name this instrument for which Beethoven’s *Hammerklavier* and Mozart’s *Rondo alla turca* were composed. Charles Ives composed a trio for violin, cello, and this instrument.

ANSWER: **piano**forte

[10] This Russian composer of *Symphonic Dances*, *The Bells*, and *Vocalise* was a piano virtuoso and composed many concertos for it.

ANSWER: Sergei **Rachmaninoff**

[10] A popular Rachmaninoff piece is his *Rhapsody on a Theme of* this man. This violin virtuoso composed the *24 Caprices.*

ANSWER: Niccolo **Paganini**

7. In this short story, Castillo worries about cosmic heat-death while trying to nurse a bird back to life and Meatball throws a party that devolves into chaos. For 10 points each:

[10] Name this short story, whose title quantity can be decreased using a Nefastis machine in a different work.

ANSWER: ***Entropy***

[10] In this other work by the author of *Entropy*, Oedipa Maas meets the inventor of the Nefastis machine while on her search to understand the meaning of the Trystero.

ANSWER: ***The Crying of Lot 49***

[10] *Entropy* and *The Crying of Lot 49* were both written by this reclusive, American author of *Gravity’s Rainbow*.

ANSWER: Thomas **Pynchon**

8. Zoroastrianism and Wicca are two examples of this type of faith. For 10 points each,   
[10] Name this type of faith, whose followers believe in two gods or two aspects of the same god.  
ANSWER: **Dualistic** [accept **Bitheistic**, **Ditheistic**, and **Duotheistic**]

[10] This dualistic faith, founded in Persia, contrasts with Zoroastrianism in its belief that evil forces currently dominate the universe instead of good ones.

ANSWER: **Manichaeism**

[10] Although he was Manichaeist in his early years, this Bishop of Hippo is better known for converting to Christianity and writing *Confessions* and *The City of God.*

ANSWER: St. **Augustine**

9. The speaker of this poem insists that the title figure is not “mighty and dreadful.” For 10 points each:

[10] Name this poem, the tenth in a series, whose title entity is a “slave to Fate, Chance, kings, and desperate men.”

ANSWER: “**Death, be not proud**”

[10] This poet of “Death, be not proud” also wrote “Thy firmness makes my circle just, / And makes me end where I began” in “A Valediction: Forbidding Mourning.”

ANSWER: John **Donne**

[10] “Death, be not proud” is an example of this fourteen-line poetic form, one variety of which is named for Petrarch.

ANSWER: **sonnet**s

10. Ras activates the cascade of the MAP family of these enzymes, while their cyclin-dependent variety controls movement through the cell cycle. For 10 points each:

[10] Name these enzymes that catalyze phosphorylation.

ANSWER: **kinase**s

[10] The binding of cyclin E to cyclin-dependent kinase 2 is required for the transition from the G1 phase to this phase of the cell cycle.

ANSWER: **S**-phase [accept **synthesis** phase]

[10] The complex of cyclin B and Cdk1 is known as the promoting factor for this process of eukaryotic cell division that begins with prophase.

ANSWER: **mitosis**

11. This nation operated a state-owned tourism organization known as “Strength through Joy,” for 10 points each:

[10] Name this nation, which overthrew the Weimar Republic. This nation attempted a “Final Solution” with the use of gas chambers in concentration camps.

ANSWER: **Nazi Germany** [accept **Third Reich**]

[10] This largest of the concentration camps was built alongside Auschwitz to ease congestion on the camps. A Jewish *Sonderkommando* unit revolted in this camp in 1944.

ANSWER: **Birkenau**

[10] Following World War II, the Trial of Major War Criminals was held in this German city. Earlier, this city was the namesake of Nazi laws passed in 1935 to protect Aryan society from Jews.

ANSWER: **Nuremberg**

12.In 2007, the Taliban took control of the Red Mosque in this city, causing the government to engage in a weeklong siege of the complex. For 10 points each:

[10] Built in 1960, name this city that became the capital of a South Asian nation that split from India in 1947.

ANSWER: **Islamabad**

[10] Islamabad is the capital of this Islamic republic, which originally controlled both a Western and Eastern, noncontiguous, wing. The Eastern wing became Bangladesh in 1971.

ANSWER: Islamic Republic of **Pakistan**

[10] This man is considered the father of modern-day Pakistan, and was the first Governor-General of the country. He headed the Muslim League before the partition.

ANSWER: Muhammad Ali **Jinnah**

13. The angular resolution of this phenomenon through a circular aperture is given by 1.22 times lambda over D. For 10 points each:

[10] Name this phenomenon whose near-field variety is described by the Fresnel equations, the bending of light around an object.

ANSWER: **diffraction**

[10] This principle is used to explain diffraction by treating every point on the wave front as a source of a new wave.

ANSWER: **Huygens**-Fresnel principle

[10] This man’s diffraction equation is equivalent to the Huygens principle and can be derived from his namesake integral theorem. His diffraction equation is more general than Fresnel’s and Fraunhofer’s.

ANSWER: Gustav **Kirchhoff**

14. Former co-stars Jennette McCurdy and Victoria Justice are “rumored” to be wildly jealous of her success. For 10 points each:

[10] Name this breakout pop star who released the singles “Break Free” and “Love Me Harder” one her sophomore album *My Everything.*

ANSWER: Ariana **Grande**

[10] Ariana Grande licked and spat on these innocent, frosted, cream-filled treats in a store in L.A.

ANSWER: **doughnut**s

[10] This Ariana Grande album slated for release in 2016 contains her single, “Focus.”

ANSWER: **Moonlight**

15. This locale includes the Fields of Punishment, the Fields of Asphodel, Elysium, and Tartarus, for 10 points each:

[10] Charon ferries souls to this locale, where Minos judges them. This location of the Greek afterlife is home to Cerberus.

ANSWER: the Greek **Underworld** [do not accept or prompt on “Hell”]

[10] This musician attempted to rescue his wife Eurydice from the Underworld after she died of a rattlesnake bite. He looked back just as he was leaving the Underworld and lost her forever.

ANSWER: **Orpheus**

[10] Orpheus’ mother was Calliope, one of these nine figures, the offspring of Zeus and Mnemosyne. They collected Orpheus’ body upon his death.

ANSWER: the **Muses**

16. Answer some things about Homer’s *Odyssey* for 10 points each:

[10] The *Odyssey* centers around Odysseus’s long journey home from this war fought over Helen. The losers of this war allowed a giant wooden horse filled with enemy soldiers into the city.

ANSWER: **Trojan** War

[10] When Odysseus and his crew get shipwrecked on Thrinacia, his crew gets hungry and slaughters these animals belonging to the Sun god Helios.

ANSWER: **cattle** [accept **cows**]

[10] Penelope’s suitors are led by these two men, one of whom hatches a plan to kill Telemachus but is shot in the throat by Odysseus. Name either leader of the suitors.

ANSWER: **Antinous** and **Eurymachus** [accept either or both, in either order]

17. Sculptures in this city include a bean-like structure titled *Cloud Gate* in Millennium Park and Alexander Calder’s *Flamingo*, which appears in *Ferris Bueller’s Day Off*. For 10 points each:

[10] Name this city that Ferris and his friends visit for a day, including a trip to Sears Tower and this city’s Art Institute.

ANSWER: **Chicago**

[10] In *Ferris Bueller*, the camera alternates between shots of Cameron with shots of a little girl in this pointillist painting by Georges Seurat that depicts many people with parasols reclining by a river.

ANSWER: *A* ***Sunday Afternoon*** *on the Island of La Grande Jatte*

[10] The Chicago Art Institute scene includes Sloane and Ferris kissing in front of this artist’s stained glass *American Windows*. This artist painted a burning synagogue and an army with red flags in his *White Crucifixion*.

ANSWER: Marc **Chagall**

18. The title character of this play is implied to commit suicide with a razor. For 10 points each:

[10] Name this play in which the title character dreams about opening a hotel at Lake Como with her valet, Jean.

ANSWER: ***Miss Julie***

[10] This playwright of *The Ghost Sonata* wrote *Miss Julie*.

ANSWER: August **Strindberg**

[10] August Strindberg hailed from this country, which was also home to the first female winner of the Nobel Prize in Literature, Selma Lagerlof.

ANSWER: **Sweden**

19. The majority of the population lies between 70 and 130 along this measurement. For 10 points:

[10] Name this quantity, which can be measured through the Stanford-Binet test and is used to determine how smart a person is.

ANSWER: **I**ntelligence **Q**uotient [prompt on intelligence]

[10] This effect is the observed worldwide increase in IQ since the 1930s.

ANSWER: **Flynn** effect

[10] This book controversially claimed that genetics played a large role in racial differences in IQ. It’s titled after the distribution of intelligence throughout a population.

ANSWER: *The* ***Bell Curve****: Intelligence and Class Structure in American Life*

20. Identify modern-day rebellious regions in the world. For 10 points each:

[10] This African nation broke off from its northern neighbor in 2011, and currently holds the title of youngest sovereign nation in the world. It was admitted into the UN in July of 2011.

ANSWER: **South Sudan** [do not prompt on partial]

[10] Two million demonstrators protested in this region’s capital of Barcelona in 2014 after the Spanish Constitution Court prohibited a referendum on independence.

ANSWER: **Catalonia** [accept “**Cataluña**”]

[10] This Georgian region attempted secession most recently in 2008. Russian peacekeepers intervened during that secession, and drove Georgian forces from this region’s capital, Tskhinvali.

ANSWER: **South Ossetia**

Extra. He failed at planning the invasion of Gallipoli during WWI, but his country would go on to elect him Prime Minister in 1940. For 10 points each:

[10] Name this man who won the Nobel Prize for Literature in 1953, and proposed a plan to invade the Soviet Union after WWII, codenamed Operation Unthinkable.

ANSWER: Sir Winston Leonard Spencer-**Churchill**

[10] Churchill gave his *Never was so much owed by so many to so few* speech during this battle. This battle pitted the Royal Air Force against the German Luftwaffe over its namesake island.

ANSWER: Battle of **Britain**

[10] Churchill, Roosevelt, and Stalin met in this city in 1943. The first of the “Big Three” conferences, Britain and the US agreed to open a second front against Germany via France while meeting in this city.

ANSWER: **Tehran**