

## Prison Bowl VII

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### Round 05 – Tossups

1. This novel's yam-eating narrator descends into an altered sense of time when listening to Louis Armstrong. Repeatedly alluding to "Yes 'em to death", its narrator is told he is Mr. Norton's fate and dreams he is castrated by the one-eyed Jack. A mock rebirth scene occurs after Brockway triggers an explosion at Liberty Paints. In this novel, Sambo dolls are sold by a character who "plunges outside history", Tod Clifton. Its narrator mingles at the Chthonian with the Brotherhood, and stabs Ras the Exhorter during an apocalyptic race riot before descending underground to leech off of Monopolated Light and Power. For 10 points, name this novel by Ralph Ellison.

ANSWER: Invisible Man [do not accept "The Invisible Man"] <MZ/AM>

2. This phenomenon originates from asperities which can be modeled with the Archard equation. On an atomic scale, this is described by the Tomlinson model, including a namesake parameter that, when greater than one, results in the stick-slip variety of this phenomenon. Reye hypothesized that this is proportional to volume of wear debris. Amontons' second law states that it is independent of the area of the contact surface. It is equal to the normal force times mu, its namesake coefficient, which has static and kinetic varieties. For ten points, name this force that acts opposite motion.

ANSWER: friction <SH>

3. The Vishnu Basement Rocks form a low point at this site, and the border between those rocks and the Tonto group is called the Great Unconformity. A cantilevered bridge over one site at the west end of this location is managed by the Hualapai Tribe and is known as the Skywalk. This location also houses most of the Kaibab ("KYE-bob") Plateau to the north, from which the Bright Angel Point Trail is accessible. Bright Angel Lodge, however, is located on the south rim of this site's namesake feature. For 10 points, name this US National Park, where the Colorado River formed a large ravine through layers of Arizona sandstone.

ANSWER: Grand Canyon National Park <ZP>

4. After the murder of an ambassador by the Trần Dynasty, this dynasty attempted to conquer Vietnam, thought that attempt was eventually thwarted by Le Loi. This dynasty dispatched Chen Lin to aid the Joseon against Toyotomi Japan, and Li Zicheng's short-lived Shun dynasty succeeded it. General Wu Sangui's opening of Shanhai Pass ended this dynasty, which was crushed at the battle of Songjin. The seven voyages of the treasure fleet led by Zheng He occurred during this dynasty. For 10 points, name this Chinese dynasty which began with a capital at Nanjing and followed the Mongol Yuan.

ANSWER: Ming dynasty <ZP>

5. Characters in this film include Kendal Ozzel, who is executed for his incompetence. When confronted with the possibility of accidentally suffocating his victim, another character states that "he's no good to me dead." The protagonists of this film are pursued by Dengar and Zuckuss, and one character is wrapped in the carcass of a Tauntaun which his friend thought "smelled bad on the outside." After being told "I love you" and replying with "I know," Han Solo is frozen in Carbonite in this film. For 10 points, name this science fiction epic directed by George Lucas in which Darth Vader reveals to Luke Skywalker that he is his father.

ANSWER: Star Wars Episode V: The Empire Strikes Back [accept either underlined portion, prompt on Star Wars] <AT>

6. This writer created a puff pastry-eating man who encourages Piskaryov to pursue a beautiful woman he sees on Nevsky Prospekt. In a story by this writer, a barber, offended by the protagonist's characterization of his hands as smelly, tries to throw a body part surreptitiously into the River Neva as an act of revenge. In another story by this writer, the words "I am your brother" make a young official regret making fun of the protagonist, who later confronts the "important person". Petrovich creates the title garment for that character, Akaky Akakievitch. For 10 points, name this Russian short-story writer, author of "The Nose" and "The Overcoat."

ANSWER: Nikolai Gogol <SC>

7. Brucine can separate molecules with this property. Delta/lambda conventions are used to name some allenes and biaryl compounds exhibiting a special case of this. Meso compounds, unlike some of their isomers, do not exhibit this property denoted by CIP-priority with an R or an S. Racemic mixtures contain molecules with this property, which Louis Pasteur demonstrated with the polarization of light by tartaric acid. A carbon atom with four different groups bonded to it in a tetrahedral configuration has this property, denoted with a prefix D or L. For 10 points, name this property of enantiomers that cannot be superimposed on their mirror image, from the Greek for “handedness.”

ANSWER: **chirality** [accept word forms; accept **enantiomerism** before mention; accept **optical isomerism**; prompt on **isomerism** or **stereoisomerism**] <SH>

8. One player of this instrument abandoned chord progressions in an album which includes the tracks “Chronology” and “Lonely Woman.” That player’s distinct sound may have come from playing a plastic version of this instrument. In addition to players such as Ornette Coleman and Lester Young, Paul Desmond wrote the melody line for this instrument in “Take Five.” A player of this instrument earned the nickname “Bird” from his jazz standard “Ornithology” while another player notably recorded *Giant Steps*. For 10 points, name this single reed woodwind instrument played by Charlie Parker and John Coltrane.

ANSWER: **saxophone** [accept **alto saxophone** before “Bird”] <BM>

9. In one of these works, a man warms his hands and cools his soup by performing the same action. Catalogued in the Perry Index, they include one in which listeners are disappointed when a mouse emerges from a mountain, and another, in which a rooster longs for a kernel of corn instead of a jewel. One of these stories tells of a fox who is unable to reach his food and is the probable source for the English idiom “sour grapes”. An animal’s overconfident nap results in his loss in one of these stories. For 10 points, name this collection of short stories attributed to an ancient Greek author, which included *The Fox and the Grapes* and *The Tortoise and the Hare*.

ANSWER: **Aesop’s Fables** [prompt on **fables**] <ZP>

10. In one form of this procedure, periodic acid oxidizes diols in sugars, yielding two aldehydes which react with Schiff’s reagent. One variant named for Hoechst is similar to one that uses DAPI. Variants include G-banding, used in karyotyping, and one which uses hematoxylin and eosin. Masson’s variant requires four solutions, and one that produces silver chromate is named for Golgi. Safranin contrasts with crystal violet, which identifies peptidoglycan in the Gram form of this process used to differentiate bacteria. For 10 points, name this microscopy procedure that increases the visibility of different structures using dyes.

ANSWER: **staining** [accept word forms; accept **Gram**, **Golgi**, or **Hoechst staining**; prompt on **dyeing** or word forms] <SH>

11. This philosophy’s theory of truth is advocated against the predominant correspondence theory in *Philosophy and the Mirror of Nature*, a work by Richard Rorty. A proponent of this school claimed that mystical experiences are ineffable and noetic, and that when faced with a momentous, living, and forced option, belief without adequate evidence is justified. “The Will to Believe” was written by a founder of this school, who judged ideas based on cash-value and introduced it as a “new way of thinking”. Its members include Jane Addams, C.S. Peirce (“purse”), and William James. For 10 points, name this school of philosophy that emphasizes practical experience.

ANSWER: **pragmatism** [accept **neo-pragmatism** before “mystical experiences”] <MZ>

12. Christopher Martin stole money from a signer of this document, John Carver. *Mourt’s Relation*, a description of life after this document’s passage, was written by Edward Winslow, the expedition’s leader. That leader later set a goal of becoming the “city on a hill” in the *Arabella Speech*. Another signatory of this document caused the Wessagussett Massacre and was later hired as a military advisor. Besides Myles Standish and William Bradford, this document was also signed by 39 other English Separatists escaping religious persecution from King James I of England. For 10 points, name this document signed aboard the namesake vessel that carried the Pilgrims to North America.

ANSWER: **Mayflower Compact** <JL/RN>

13. At Borobudur, this god is depicted in the third gallery along with Queen Maya and Maitreya in the Rupadhatu level, the world of forms. The *Shri Rudram Chamakam* is an extensive hymn dedicated to this god, and the holiest of his temples is Pashupatinath in Nepal. Harihara is the combined form of Vishnu and this god. Bhairava, his destructive form, contrasts with his dancing Nataraja form. His first consort was Sati, and he rides on the bull Nandi wielding a trishula. He drank some poison, making him blue, and has a destructive third eye. For 10 points, name this god whose wife Parvati lived with him on Mount Kailash, the “destroyer” of the Hindu Trimurti.

ANSWER: Shiva [accept reasonable equivalents like Shiv or Siva] <AM/RN>

14. The break-off events of these objects are exemplified by an event affecting Altels in 1895, which was thought to have been triggered by infiltrated water. A tunnel under one of these objects in Kluane National Park collapsed and formed a canyon 20 years after a surge that almost recreated a lake. The islands Santonen and Hanhinen merged into Hailuoto, a process called rebound, after one of these objects receded. They are divided into zones of ablation and accumulation, and they leave behind moraines at their furthest extent. Sometimes forming aretes between their ‘u’-shaped valleys, for 10 points, name these moving sheets of ice which cover Greenland and Antarctica.

ANSWER: glaciers <ZP>

15. This painting was first displayed alongside Alexander Calder’s *Mercury Fountain*, and elements of it appear in an earlier series of sketches by its artist arranged in two 3 by 3 grids. In the right portion of this work, a man with his arms outstretched is being devoured by a monstrous creature, and a woman holding a candle peers through a window. In the central scene of this painting, which features an eye with a light bulb for an iris, a bull with its tail lit on fire gores a flailing horse. For 10 points, name this monochromatic painting depicting the violent bombing of a certain Basque city by the Luftwaffe, a work by Pablo Picasso.

ANSWER: Guernica <AT>

16. This man opposed the Common Agricultural Policy and the Luxembourg Compromise would help put an end to the subsequent Empty Chair crisis. This man unsuccessfully campaigned for his government to accept the Declaration of Union with Britain and gave the Appeal of June 18th. He signed the Evian Accords with the FLN, granting Algeria independence. During WWII, he exhorted his countrymen to resist the Vichy regime and the German occupation of France which cemented his role as head of the Free French Forces. For 10 points, name this French general and first President of the French Fifth Republic.

ANSWER: Charles Andre Joseph Marie de Gaulle <JL>

17. In Old English, this concept is not distinguished in the dative singular and plural. Agreement with non-human plurals in Arabic will correspond to one of these frequently marked by the suffix “at”. Fusion of two in Swedish resulted in a “common” one, and Swahili has nine, which connote a prefix extended to all other words in a clause. In proto-Indo-European, it may have distinguished only between animate and non-animate, and it may alter personifications of death in different cultures. Most Romance languages have two, marked in French by definite articles “le” and “la.” For 10 points, name this classification of nouns, commonly including “neuter,” “masculine,” and “feminine.”

ANSWER: grammatical gender [prompt on noun class; do not accept “natural gender”] <SH>

18. This poem’s author describes setting up this poem’s “circumscription of space” in his essay “The Philosophy of Composition”. Its narrator “wheeled a cushioned seat” and sat with his “head at ease reclining” until “the air grew denser, perfumed by an unseen censer”. Asking if there is “balm in Gilead”, this poem takes place in “bleak December” and opens “once upon a midnight dreary” as the narrator ponders “weak and weary”. Its narrator commands the title figure to return to “Night’s Plutonian shore”, calling it a “prophet” and “thing of evil” that evokes memories of Lenore. For 10 points, name this poem about an “ebony bird” who repeats “Nevermore”, written by Edgar Allen Poe.

ANSWER: “The Raven” <SoH>

19. This composer included two “Nachtmusik” movements which employ cowbells and a mandolin to evoke a pastoral atmosphere. A symphony by this composer evokes Klezmer music in its third movement, while its second movement is a merry Ländler in 3/4 time. That is the first of his symphonies, while the fifth one contains a famous “Adagietto” fourth movement scored for strings and harp. This composer’s eighth symphony is based on the hymn “Veni creator spiritus” and is named for the large amount of performers required. For 10 points, name this German composer of symphonies nicknamed “Titan” and “of a Thousand.”

ANSWER: Gustav **Mahler** <BM>

20. This man planned a coup against Edward Wingfield a few months after his arrest at sea. George Percy and John Ratcliffe served as consecutive presidents of the territory this man governed indirectly. Christopher Newport almost hanged this man for attempted mutiny, and Lord De la Warr replaced him in his highest position. The Tidewater and Pamunkey tribes captured this man in their hunting raids and their ‘emperor’ let him live. This man famously decreed “he who works not, eats not,” and his departure in 1609 led to the Starving Time. For 10 points, name this English leader of Jamestown Colony who, according to legend, was saved by Pocahontas.

ANSWER: John **Smith** <JL>

TB. One model of this quantity involves the integral of  $t^3$  over  $e^3 - 1$  from zero, the third of that model’s namesake function. Another model assumes each atom is an independent quantum harmonic oscillator and fails to predict this at low temperatures. For ideal gases, pressure times volume to the power of a ratio of these quantities, the adiabatic index, is constant. At constant pressure, it is the partial derivative of enthalpy with respect to temperature. Debye’s model of this quantity improved the Dulong-Petit law. It is equal to 4.18 joules per gram times kelvin for liquid water. For 10 points, name this amount of heat required to increase the temperature of a substance by a given amount.

ANSWER: **heat capacity** <SH>

### Round 5 – Bonuses

1. The Limbourg brothers' *Tres Riches Heures* and *Belles Heures* are in this medium. For 10 points each:

[10] Name these handwritten books containing embellished text, miniatures, and elaborate gold and silver decorations. They are the best surviving examples of painting from the Middle Ages.

ANSWER: illuminated manuscripts [prompt on illuminations]

[10] This painter used relief etching to illuminate his poetry collections *The Marriage of Heaven and Hell* and *Songs of Innocence and Experience*.

ANSWER: William Blake

[10] William Blake and Maurice Sendak often illustrated their works in this painting medium, whose techniques include glazes and wet-on-wet. In gouache ("gwash"), gum arabic is added to its paints to increase opacity.

ANSWER: watercolor [or aquarelle] <MZ>

2. Answer the following about special relativity, for 10 points each:

[10] This scientist names a factor, denoted gamma, equal to one over the square root of one minus v squared over c squared. His transformation describes the change in spacetime coordinates from one inertial reference frame to another.

ANSWER: Hendrik Lorentz

[10] This phenomenon describes the apparent shortening of objects by a factor of one over gamma in reference frames moving at relativistic speeds.

ANSWER: length contraction [or Lorentz contraction; or distance contraction]

[10] This value is symbolized c and equal to approximately three times ten to eighth power. It is locally constant in all reference frames according to special relativity.

ANSWER: speed of light in a vacuum <SH>

3. She was told that if she kept silent about her pregnancy, her child would be immortal. For 10 points each:

[10] Name this woman prophesied to marry a hideous monster. She was assisted by ants, a talking reed, and an eagle in her quest to be reunited with her lover Cupid.

ANSWER: Psyche

[10] Psyche's sisters convinced her to sneak a peek at her husband as he slept. Cupid didn't turn out to be hideous at all, but Psyche made *this* mistake, causing Cupid to wake up and flee.

ANSWER: she dripped hot lamp oil on him [accept equivalents, such as she spilled hot wax on him]

[10] A talking tower told Psyche how to enter the underworld and approach this goddess, from whom Psyche asked a box of beauty. Unbeknownst to Psyche, this wife of Hades filled the box instead with sleep.

ANSWER: Persephone [or Proserpina] <MZ>

4. The artist of this song was going to go easy on us not to hurt our feelings, but changes his mind after he realizes that he's only going to get this one chance. For 10 points each:

[10] Name this song in which the artist spews out a long string of unintelligible jibber-jabber before declaring that he's beginning to feel like the title figure.

ANSWER: "Rap God"

[10] Rap God was a song by this rapper, who occasionally performs under his alter-ego, Slim Shady. Singles from his 2010 album *Recovery* include "Lose Yourself" and "Love the Way You Lie," which features Rihanna.

ANSWER: Eminem [or Marshall Bruce Mathers III]

[10] Eminem won an Academy Award for this song, which was featured in his film *8 Mile*. It includes lyrics such as "his palms are sweaty, knees weak, arms are heavy" and the silly phrase "mom's spaghetti."

ANSWER: "Lose Yourself" <BS>

5. In two instances, a game centered on this action included three faked strikes to test the recipient's resolve. For 10 points each:

[10] Give this method of death, committed by Judith against Holofernes, and by Lancelot against a red-girdled knight in *The High History of the Holy Grail*.

ANSWER: **beheading** [or **decapitation**]

[10] Lancelot's encounter with the red-girdled knight is probably derived from an earlier depiction of this Arthurian knight's beheading game with the Green Knight.

ANSWER: Sir **Gawain**

[10] A beheading game is used to crown Cúchulainn ("coo-HEL-en") as the champion in the *Bricriu's Feast* story. *Bricriu's Feast* is a part of this nation's *Ulster Cycle*, which includes the characters Finn McCool and Scathach.

ANSWER: **Ireland** [accept **Northern Ireland**; grudgingly prompt on **Great Britain**; don't accept Scotland, Wales, Brittany, France, or the Isle of Man] <ZP>

6. This type of symmetry is displayed about the sagittal plane. For 10 points each:

[10] Animals displaying this type of symmetry will have symmetric left and right halves. Cephalization tends to occur in conjunction with this symmetry.

ANSWER: **bilateral** symmetry

[10] Including chordates, this enterocoelomate superphylum consists of bilaterally symmetric animals in which the blastopore, the first opening in embryonic development, develops into the anus.

ANSWER: **deuterostome**

[10] Members of this phylum display bilateral symmetry in the larval stage, but unlike other deuterostomes, they develop five-sided radial symmetry as adults. Their name comes from the Greek for "spiny skin."

ANSWER: **echinodermata** <SH>

7. For 10 points each, answer the following about secret communication during World War II.

[10] Name this cipher machine used by the Germans during the war. It had multiple rotors and was complexified with additional rotors and settings for military use.

ANSWER: **Enigma** machine

[10] The scientists Zygaliski, Rozycki, and Rejewski from this nation first cracked the Enigma cipher. Those men from this nation gave the cipher to the Allies before the German invasion of this country.

ANSWER: **Poland**

[10] This site in England was home to the Government Home and Cipher School and was the site for the interception and decryption of Axis messages. The German naval enigma broke with the aid of machines from submarines here.

ANSWER: **Bletchley Park** <DW/RN>

8. For 10 points each, answer the following questions about the development of historiography.

[10] This man is often called the first modern historian for his thorough methodology and use of primary sources in his *Decline and Fall of the Roman Empire*, which he attributed to the decline of civic virtue and rise of Christianity.

ANSWER: Edward **Gibbon**

[10] As an Enlightenment historian, Gibbon was critical of the perceived intellectual and cultural backwardness of the Middle Ages, calling it this sometimes-pejorative term that originated with Petrarch's description of "dense gloom."

ANSWER: **Dark Ages**

[10] Some historians consider the term "Dark Ages" inaccurate under this reevaluation of orthodox historical views. This term is sometimes used to imply counterfactualism, although Deborah Libstadt distinguished this from denial.

ANSWER: **revisionism** <SH>

9. For 10 points each, let's see what you know about Chinese performing arts.

[10] In this art form, performers move flat figures between a light source and a translucent panel to project images. It is popular in Shaanxi ("sha'AN-see").

ANSWER: shadow puppetry [or equivalents like shadow theater or shadow play; also accept ying zi xi]

[10] This Chinese theater genre emphasizes high-pitched singing and choreography, and utilizes elaborate makeup and costume. Named after a city in China, it utilizes the *jinghu* and features four roles: *sheng*, *dan*, *jing*, and *chou*.

ANSWER: Beijing opera [or Peking opera; or jing ju; or guo ju]

[10] This comedic genre features rapid-fire banter between two performers. Famous comedians in this genre include Hou Baolin, Guo Degang, and Dashan.

ANSWER: xiang sheng [or crosstalk] <MZ>

10. According to the Kurgan model, this people emigrated from the Sea of Azov to their final location. For 10 points each:

[10] Name this Anatolian people, whose empire clashed with that of Egypt as it expanded into the Levant. They had a major city at Hattusa and were eventually replaced by the Assyrians.

ANSWER: Hittites

[10] The height of the Egyptian-Hittite conflict was the backdrop for this battle. By most accounts, the battle was a draw, since the Hittites withdrew and Rameses II did not pursue them, but it led to a treaty between the two empires.

ANSWER: Battle of Kadesh

[10] The Battle of Kadesh involved the largest number of these objects ever recorded. The Hittites' early mastery of ironworking improved these horse-pulled "battle taxis" often manned by archers.

ANSWER: chariots <ZP/RN>

11. This poet named himself after a banana tree. For 10 points each:

[10] Name this Japanese poet of *The Narrow Road to the Deep North* who suggested that even a monkey might want a raincoat in the winter. In another of his poems, a frog creates a splash by jumping into an old pond.

ANSWER: Matsuo Bashō [or Sōbō; or Tōsē; or Matsuo Chūemon Munefusa]

[10] Bashō was a master of this Japanese poetic form that evolved out of the opening stanza of the *renga*. Its three lines are respectively composed of five, seven, and five *on*.

ANSWER: haiku

[10] *Haiku* traditionally employ one of these words that both separates and links two contrasting images. In Bashō's frog *haiku*, *ya* functions as one of these words.

ANSWER: kireji [or cutting word] <ZP/MZ>

12. These guys certainly weren't positive with their research. Answer the following about some figures important in the history of the electron, for 10 points each:

[10] This man proved that cathode rays were comprised of negatively charged particles much less massive than atoms. He is often considered the discoverer of the electron.

ANSWER: J. J. Thomson

[10] Dmitri Skobeltsyn first detected these particles in a cloud chamber. Their tracks curved in the opposite direction as an electron's in an applied magnetic field because they have the same mass and spin but opposite charge.

ANSWER: positron

[10] J.J. Larmor formulated an equation used to determine the power radiated by electrons as they decelerate, producing this electromagnetic radiation. Cyclotron and synchrotron radiation are types of this radiation.

ANSWER: bremsstrahlung [or braking radiation; prompt on deceleration radiation] <AT>

13. Followers of this religion were known for their opposition to slavery. For 10 points each:

[10] Name this Christian sect known for its pacifism. Its colloquial name comes from the command to “tremble at the word of the Lord.”

ANSWER: Quakers [accept Religious Society of Friends]

[10] This man founded the Quakers. He was arrested for blasphemy twice, once while preaching under a tree at Balby.

ANSWER: George Fox

[10] Quakers believe that all people have inside them this representation of God’s presence. “Unprogrammed worship” involves any member of the congregation trying to lead the congregation towards this concept.

ANSWER: inner light [accept inward light] <PS>

14. The protagonist is transfixed by the image of his wife at the top of the stairs. For 10 points each:

[10] Name this short story in which Gabriel Conroy muses about his own mortality after his wife Gretta tells him about Michael Furey’s fate. It concludes with the image of snow blanketing all of Ireland.

ANSWER: “The Dead”

[10] This novel consists of 18 episodes, each titled after a different section of the original Greek hero’s voyage. Its final episode is a stream-of-consciousness “yes” soliloquy given by Molly Bloom.

ANSWER: Ulysses

[10] “The Dead” is the final story in *Dubliners*, a collection by this modernist author of *Ulysses* and the dauntingly experimental *Finnegan’s Wake*.

ANSWER: James Joyce <PS>

15. In the 18th century, Austria was not exactly friendly to the idea of a female ruler. For 10 points each:

[10] Name this Austrian ruler whose father Charles VI attempted to facilitate her ascension to the throne with the passage of the Pragmatic Sanction of 1713.

ANSWER: Maria Theresa [prompt on partial]

[10] The Pragmatic Sanction failed to quell the desires of other European nations for Austrian land. Prussia’s invasion of Silesia prompted this conflict over the Austrian crown which was ended by the Treaty of Aix-la-Chapelle.

ANSWER: War of the Austrian Succession

[10] Dispute over Maria Theresa’s succession centered on this ancient Frankish law which prohibited agnatic succession and more specifically females from inheriting ancestral land.

ANSWER: Salic Law [or Salian Law] <JL>

16. This entity is depicted wielding both a sword and a papal staff with a body made of people. For 10 points each:

[10] Identify this symbol of the Commonwealth, headed by a Sovereign with civil and ecclesiastical power. It represents a covenant where people cede their natural rights for a state of peace.

ANSWER: the Leviathan

[10] The Leviathan is a political structure imagined by this English philosopher, who warned that the alternative is a state of nature where life is “solitary, poor, nasty, brutish, and short”.

ANSWER: Thomas Hobbes

[10] According to Hobbes, people are primarily driven by the pursuit of this concept. The state of nature is anarchic because people are preoccupied with this, which is more certain in a state of peace.

ANSWER: self-survival [or self-preservation; accept synonyms] <MZ>

17. This quantity is equal to itself to the fifth power, but is the negative of itself to the third power. For 10 points each:

[10] Name this complex number, the imaginary unit.

ANSWER: i [accept square root of negative one]

[10] Complex solutions arise when this quantity belonging to a quadratic equation is negative.

ANSWER: discriminant [do not accept “determinant”]

[10] In complex analysis, taking this operation around the pole of one over z equals two pi i times the winding number of the path. It has Riemann and Lebesgue versions and is approximated by Simpson’s rule in real variables.

ANSWER: integration [accept taking the integral] <ZP>



18. He published a set of chamber works entitled “Erdödy” and “Sun.” For 10 points each:

[10] Name this Austrian composer and “Father” of a certain genre of chamber music. He wrote works in that genre including ones titled “The Joke” and “Emperor.”

ANSWER: Joseph Haydn

[10] Haydn wrote works extensively for this chamber ensemble of two violins, a viola, and a cello. Mozart wrote 23 of these and Beethoven wrote one known as his *Grosse Fuge*.

ANSWER: string quartet [prompt on quartet]

[10] This notable string quartet in F major by Dvořák (DVOR-zhak) begins with a pentatonic melody in the viola. He composed it shortly after writing his *New World Symphony*.

ANSWER: American String Quartet [accept *String Quartet No. 12* or equivalents] <BM>

19. He and his lover attempt suicide by sledding into a tree, but survive and are left paralyzed. For 10 points each:

[10] Name this American character who is stuck caring for his sick wife Zeena. He falls in love with Mattie, a cousin of Zeena’s who arrives to help out.

ANSWER: Ethan Frome [accept either]

[10] This creator of Ethan Frome wrote *The Age of Innocence* as an apology for an earlier novel about the downfall of Lily Bart, *The House of Mirth*.

ANSWER: Edith Wharton [or Edith Newbold Jones]

[10] This object, Zeena’s favorite wedding present, represents Ethan and Zeena’s marriage. Prior to Ethan’s sledding smash-up, it is taken out by Mattie and shattered by their cat.

ANSWER: the red pickle dish <MZ>

20. For 10 points each, name these Native American groups that preceded the colonies.

[10] This powerful confederacy was founded by Dekanawida and Hiawatha in upstate New York to create peace among its five nations. A sixth nation, the Tuscarora, joined it in 1722.

ANSWER: Iroquois Confederacy

[10] This tribe fought the US Army in Red Cloud’s War. A group of them, led by Big Foot or Spotted Elk, was massacred at Wounded Knee. They gained recognition in the later-broken Fort Laramie Treaty.

ANSWER: Lakota [accept Teton and Titunwan; prompt on Sioux]

[10] Cahokia and Moundville were central cities to this culture subdivided into regional or paramount chiefdoms. This culture depended on maize agriculture and succeeded the Woodland Indians.

ANSWER: Mississippian culture <DM/RN>

TB. For 10 points, name the following about Peru-Chile relations in the late 1800s.

[10] This war on a certain body of water saw Antofagasta and Arica ceded to Chile. Bolivia became landlocked after the Treaty of Ancón ended this war, eventually leading to the Chaco War.

ANSWER: War of the Pacific

[10] A major factor in the onset of the War of the Pacific was disputed territory and mining rights in this desert on the Pacific Coast. It is the driest desert in the world and is located in northern Chile and southern Peru.

ANSWER: Atacama Desert

[10] Tarapaca Province in the Atacama was valuable because of this natural resource, which COSATAN mined until 1958. Cities famous for its production, such as Chacabuco, either became ghost towns or concentration camps.

ANSWER: saltpeter [or sodium nitrate] <DM/RN>