

Western Invitational Tournament 2013

By UVA (Matt Bollinger, Evan Adams, Tommy Casalaspi, David Seal, Daniel Hothem, Dennis Loo)

Tossups

1. The antagonist of this play gets banished along with Thomas Mowbray after each accuses the other of treason. Hearing music played outside his prison, the title character of this play asserts, “I wasted time, and now doth time waste me.” The author of this play got in trouble with Queen Elizabeth after staging it for the Earl of Essex just before his rebellion. A speech in this play originated the phrase “sceptered isle” and laments the leasing of “this blessed plot, this earth, this realm, this England.” The title character of this play is (*) murdered by Extor after being overthrown by Henry Bolingbroke, whom he had disinherited after the death of John of Gaunt. For 10 points, name this Shakespearean history play about the monarch succeeded by Henry IV.

ANSWER: *The Life and Death of* **Richard II**

2. The invariance of electric fields under this transformation results in the doubly degeneracy of the energy levels of systems with an odd number of fermions in Kramers theorem. Invariance with respect to this transformation results in the equality of the ratios between flows and forces in a thermodynamic system that is out of equilibrium in Onsager’s reciprocity. Almost all microscopic processes are invariant under this transformation but Boltzmann’s (*) H-theorem and the second law of thermodynamics imply macroscopic processes aren’t, leading to Loschmidt’s paradox. Laws invariant under this transformation exhibit T symmetry. For 10 points, each, laws invariant under what operation give the same results if run backwards in time?

ANSWER: **time-reversal**

3. This Prime Minister declared that the government would help Irish tenant farmers buy their land from landlords in the Wyndham Land Purchase Act. His government fell after he refused to pass a set of protective tariffs in the name of “imperial preference,” leading to the resignation of Joseph Chamberlain, who became this PM’s sworn enemy. He recognized French dominance in Morocco in return for French non-interference in Egypt during the establishment of the (*) Entente Cordiale. This nephew and successor of Lord Salisbury penned a letter to Baron Rothschild supporting the stance of Nathan Sokolow and Chaim Weizmann. For 10 points, name this Conservative Prime Minister of the UK, who issued a “declaration” of support for a Jewish homeland.

ANSWER: Arthur James **Balfour**

4. When not writing works about supposedly healthy lifestyles, the Belgian professor Paul Bouts promoted this practice in works like *Les Grandioses Destinees*. Mark Twain cast aspersions on this practice by visiting the London office of Lorenzo Fowler, once using a pseudonym and the other time using his real name.

Cesare Lombroso was heavily influenced by this practice, which shaped his atavistic theory of (*) criminality. Johann Spurzheim promoted this practice, but didn’t reach the rockstar-level popularity of his mentor Franz Josef Gall, who toured England with calipers and bags of skulls. For 10 points, name this pseudoscience, in which skull shape is used to explain differences in behaviors, often given as “scientific” support for racism

ANSWER: **phrenology** [or **physiognomy**; or **craniometry**; prompt on scientific **racism** before it’s mentioned]

5. One character in this play stores a piece of a violin, his daughter’s baby shoe, a “piece of cameo on a string,” and a poem signed by his mother in his safe-deposit box. In this play, a black servant says that her masters “eat the earth and eat all the people on it like in the Bible with the locusts.” A married woman in this play flirts with a visiting Chicago businessman named William Marshall, who plans to build a cotton mill. In it, Leo and Oscar try to steal (*) \$88,000 in Union Pacific Bonds from an invalid confined to a wheelchair, who dies trying to climb up the stairs to get his medication. That invalid, Horace, is effectively murdered by his wife Regina Giddens. For 10 points, name this play about the money-obsessed Hubbard family by Lillian Hellman.

ANSWER: *The* **Little Foxes**

6. Vermont’s governor recently proposed funding one of these programs by shifting money from the earned income tax credit. David Weikart developed the HighScope Approach used in these programs in Michigan, where they were the subject of the Perry study. The Frank Porter Graham Institute concluded that these policies could be effective in an experiment conducted in North Carolina, the (*) Abecedarian Project. In the 2013 State of the Union, Barack Obama claimed “every dollar” spent on these programs will save “seven dollars” in

the future. The Race to the Top Early Challenge funds these programs. For 10 points, name this type of program implemented nationally under Head Start, which provides education to children under five years old.

ANSWER: pre-kindergarten education [or pre-K education; prompt on preschool education]

7. This man's relationships with his wives Mamah Cheney and Olgivanna Milanoff are documented in T.C. Boyle's novel *The Women*. For his son David, this architect designed a Phoenix home which is entered through a wide spiral ramp. He used square concrete bricks he called "textile blocks" to design the Ennis House in Los Angeles. Zaha Hadid proposed a museum addition to his Price Tower in Bartlesville. He used skylights to illuminate a cavernous "Great (*) Workroom" supported by stalactite-like columns. This architect of Johnson Wax Building named his studio homes in Scottsdale, Arizona and Spring Green, Wisconsin after Taliesin. For 10 points, name this American architect of the Prairie Style best known for designing Fallingwater.

ANSWER: Frank Lloyd Wright

8. This is the site of phosphorylation for a molecule responsible for moving cholesterol to tissues, known as Apolipoprotein B-100. Molecules are sulfanated when they pass through lumen in these organelles. Transport to this organelle in fungi is inhibited by Brefeldin A. Objects being transported from this organelle are coated with a protein that binds to ARF, called (*) COPI. This organelle tags molecules with mannose-6-phosphate if they are to be carried to the lysosome. This organelle, which is made up of stacks of cisternae, has cis and trans networks. For 10 points, name this organelle that packages proteins in the cell before sending them off, an apparatus named for an Italian scientist.

ANSWER: Golgi body [or Golgi complex; or Golgi apparatus]

9. The fairy Oberon gives Huon an enchanted one of these objects which is operated by the sign of the cross. A gold one that breaks apart in the presence of lies and is restored by truths is owned by Cormac mac Airt. Aegeus saves the life of a young Theseus by knocking one of these out of his hands. Following the advice of Tyr's mother, Thor wins a kettle from Hymir by breaking one of them against the giant's skull. The goddess (*) Hygiea is usually depicted holding a snake and one of them. One of them is owned by the Greek analogue of Juventas, who marries Heracles when he ascends to Olympus. Another of them is owned by a young boy abducted from Mount Ida by Zeus. For 10 points, name these objects used by Hebe and Ganymede to pour nectar for the gods.

ANSWER: cups [prompt on vessels and the like]

10. The Etruscan-born poet Aulus Persius Flaccus wrote in this genre, which another author said it was difficult "not to write." Quintilian claimed that this genre was "wholly ours" and had no Greek equivalent, being invented by the Roman author Lucilius. This genre, which often draws on epic because it is also written in dactylic hexameter, has a prose "Menippean" counterpart exemplified by the (*) *Apocolocyntosis*. An encounter with a pest on the Sacred Way is narrated in one of Horace's poems in this genre. The phrases "rara avis" and "who watches the watchmen?" were coined in one of these poems attacking women, and another attacks Roman obsession with "bread and circuses." For 10 points, name this genre of humorous writing practiced by Juvenal.

ANSWER: Roman satire [or satura; prompt on general answers, such as humor writing or invective, but this is a specialized term; do not accept or prompt on "comedy"]

11. The "Crummey" type of this instrument requires annual letters explaining their thirty-day withdrawal windows. In cases of unjust enrichment, the "constructive" type can be used to collect property from a bankrupt debtor when the specific property owed can be traced. They can include "spendthrift" clauses in order to deter creditors. These instruments are created from (*) property owned by the "settlor" in order to benefit a "beneficiary." Mitt Romney put much of his wealth in the "blind" type after criticizing Ted Kennedy for doing the same. Their beneficiaries receive the benefit of property, though it is owned and managed by an unrelated fiduciary. For 10 points, name these instruments which are often used to establish funds for spoiled children.

ANSWER: trusts

12. One member of this organization, Anna Mae Aquash, was murdered in 1976. Judge Paul Benson served as judge during a trial of another one of its members. Its founders included Dennis Banks and Clyde Bellecourt. Russell Means led this organization in its most famous action, during which Frank Clearwater and Buddy Lamont were killed. Another member of this organization was accused of killing FBI agents (*)

Ronald Williams and Jack Coler in the Pine Ridge Massacre. This organization took over the Bureau of Indian Affairs in 1971 and one of its leaders was Leonard Peltier. For 10 points, name this organization that took over the town of Wounded Knee, South Dakota in 1973, a Native American activist group.

ANSWER: American Indian Movement

13. This book describes an army of two-thousand youths who each get injured in battle but all survive. Another passage in this book has led to speculation about the nature of animals called the “curelom” and “cumom.” This book describes the “Sons of Helaman” and warns against “secret combinations” like the Gadianton robbers. It tells of how the Jaredites built barges to cross the ocean in its section the Book of (*) Ether. Another group described in this book follows a compass-like instrument called the “Liahona” which is held by the prophet Lehi. This best known of the “standard works” was attested in western New York on gold plates. For 10 points, name this text discovered by Joseph Smith, a foundational sacred text of the Church of Latter Day Saints.

ANSWER: The Book of Mormon

14. This author created the revolutionary Stepan Federov, who helps Ivan Kalieyev throw the bomb that kills a Grand Duke. Another of his characters takes possession of a stolen panel of the Ghent Altarpiece from a bartender. He had an affair with Maria Casares, the Spanish actress who played the lead role in his play *The Misunderstanding*. This author of the play *The (*) Just Assassins* wrote a novel in whose protagonist is traumatized for being unable to save a suicidal woman from jumping into a river in Amsterdam. He wrote another novel in which Father Paneloux preaches a sermon about the title phenomenon. That novel is narrated by Dr. Bernard Rieux and set in the town of Orran. For 10 points, name this French author of *The Fall* and *The Plague*.

ANSWER: Albert Camus

15. In this country, after the Central Committee weakened the clergy, Catholic confirmation was replaced with a “youth consecration” involving an oath to the state at age 14. A workers’ uprising in this country on June 17, 1953 is now celebrated as a “day of unity,” but was put down at the time when the VoPo fired on civilians. It was the main manufacturing center for the (*) Trabant, a piece of plastic used as a car. Markus Wolf was an official in this country’s secret police, which was known for employing as many as one in seven citizens as informants. The Stasi patrolled this country for leaders like Erich Honecker and Walter Ulbricht. For 10 points, name this Communist country reunified with its western neighbor after the Cold War.

ANSWER: East Germany [or German Democratic Republic; or Deutsche Demokratische Republik; or GDR]

16. A piece of art in this medium contains the letters “A E,” representing Anne of Brittany’s motto “A ma vie,” emblazoning a central fountain surrounded by animals. In France, Beauvais and Gobelins were the main sites of their manufacture. John D. Rockefeller bought seven of them from the La Rochefoucauld family, illustrating the *Hunt of the Unicorn*. Pope Leo X commissioned Raphael to create a set of 10 designs for these works, including *The Miraculous Draught of Fishes* and *The Sacrifice at Lystra*, known as his (*) “cartoons.” A more famous one includes a depiction of Bishop Odo and shows an English king taking an arrow out of his eye. For 10 points, name these works of colorful threads woven together on a loom, such as the “Bayeux” one.

ANSWER: a tapestry

17. This thinker proposed monogamous marriage as the best way to avoid female sacrifice of “absolute inner worth” in objectifying sexual relations. He distinguished between beauty attached to a set of ideas, called “adherent” beauty, and a purer “free” beauty in a treatise dealing with the “determining” and “reflective” aspects of the title concept. In another treatise, he argued that existence is not a predicate of any argument for the existence of God and outlined the (*) “Transcendental Doctrine of Method.” He claimed that a morally sound maxim is one which could be wished to be a universal law in his *Groundwork of the Metaphysics of Morals*. For 10 points, name this German thinker who theorized the categorical imperative and wrote *Critique of Pure Reason*.

ANSWER: Immanuel Kant

18. Upon taking his highest office this man suspended all payments of foreign debt for two years, leading to Britain, Spain and France sending a force to take a customs house. This man sent his family to New York out of fear they would be kidnapped; his wife Margarita caused a stir when she wore ostentatious jewelry to a meeting with William Seward. During his reign, some of his political rivals, including (*) Leonardo Marquez, killed Melchor Ocampo. He served as the President of his nation’s Supreme Court under Ignacio Comonfort. This

man refused to grant General Santa Anna asylum, but Santa Anna forced him to flee to New Orleans. For 10 points, name this Zapotec Mexican president whose tenure was interrupted by the regime of Maximilian I.
ANSWER: Benito (Pablo) Juarez (Garcia)

19. In *How I Met Your Mother*, Barney threatens to reveal that Marshall once dropped some of this food only to pick it up and keep eating it. In *Fairly OddParents*, Timmy forces a famous actor with this surname to appear in one of his films. Mini-versions of this food give three characters food poisoning as they try to find a caterer for a wedding. Ben Wyatt's love for this food horrifies the townspeople of Pawnee in a recurring joke from (*) *Parks and Recreation*. In a *Seinfeld* episode with this title, Kramer is banned from a restaurant after putting his wet clothes in the oven and George brings this food to Steinbrenner for lunch until he is banned from the restaurant for stealing his own change from the tip-jar. For 10 points, name this Italian food, a folded pizza.
ANSWER: calzones

20. In category theory, pullbacks are the fiber type of this operation. Performing it on an empty family will give a terminal object. Modding out the tensor algebra by the ideal generated by every vector tensor itself gives a space whose elements are formed by the exterior type of this operation. This word names a topology that preserves compactness by (*) Tychonoff's theorem. For two groups, the direct sum is isomorphic to the direct type of this operation, where the elements are ordered pairs of elements in each group and so the underlying set is given by its Cartesian form. One variety of it can be used to find the volume of parallelepipeds or construct normal vectors and another gives the projection of a vector. For 10 points, name this operation with cross and dot forms.
ANSWER: product

Tiebreakers

21. Bela Bartok's first composition of this type in two movements was published posthumously, and his second composition of this type included an unusual *andante tranquillo* second movement and was dedicated to Zoltan Szekely. Another composition of this type was composed in the company of Josef Kotek and transitions without a break from the G minor *canzonetta* second movement to its D major finale. Adolph Brodsky premiered that composition written by Lake Geneva by Pyotr Ilyich Tchaikovsky. Four (*) programmatic examples of this type of composition comprise Antonio Vivaldi's work *The Four Seasons*. For 10 points, name this type of composition written for orchestra and a soloist on the smallest standard string instrument.
ANSWER: violin concerto [prompt on concerto]

Bonuses

1. You are a criminal under the jurisdiction of the Roman Empire. Answer these questions about what might happen to you, for 10 points each.

[10] If you are a slave, you might be subjected to this extremely painful form of execution involving nails and a cross.

ANSWER: crucifixion

[10] A Vestal Virgin who sleeps with or is raped by a citizen is considered to have violated the oath of chastity, and is therefore killed in this manner.

ANSWER: She was buried alive in the Campus Sceleratus

[10] If you committed this crime, like Lucius Hostius, you will very creatively be thrown into the Tiber in a bag containing a snake, a dog, a monkey, and a rooster.

ANSWER: parricide [or patricide; or killing your father; prompt on killing your parents]

2. In *Oracle of Seasons*, you can ride one of these creatures named Dmitri, who can swim up waterfalls. For 10 points each:

[10] Name these fire-breathing lizards who hate smoke and are habitually in conflict with Gorons.

ANSWER: Dodongos

[10] King Dodongo is the second boss in this N-64 Zelda game, in which Darunia rewards you the Goron's Ruby for defeating him. In this game, often considered the best video game ever made, you learn songs on the title instrument.

ANSWER: *The Legend of Zelda: Ocarina of Time*

[10] In *Ocarina of Time*, Dodongo's Cavern is located in this mountain, on which Goron City is located.

ANSWER: Death Mountain

3. $y' + g(x)y = h(x)$ is an example of a non-homogenous type of these equations. For 10 points each:

[10] Name these types of equation, which come in partial and ordinary forms.

ANSWER: differential equation

[10] If this determinant is non-zero for n functions, then they are linearly independent, and so if the functions are solutions to a linear differential equation then a linear combination of them can be used in the general solution.

ANSWER: Wronskian determinant

[10] The existence and uniqueness theorem for a system of linear ODEs follows from the properties of this function. For the matrix A , this function of A times t times a vector of initial values gives the general solution to $dX/dt = AX$.

ANSWER: matrix exponential

4. This book is composed of chapters called *surahs*. For 10 points each:

[10] Name this text which Muslims believe was revealed to Muhammad by the angel Gabriel.

ANSWER: Qur'an

[10] This third Rashidun Caliph created the committee that compiled and standardized the Qur'an.

ANSWER: Uthman ibn Affan

[10] The surahs of the Qur'an are often divided into these two categories. The surahs in one category are generally shorter and prophetic, while the ones in the other category are often longer and legalistic.

ANSWER: Meccan and Medinan surahs

5. One of this director's films focuses on the IRA prison strikes culminating in the death of Bobby Sands, and another focuses on a sex addict named Brandon living in New York. For 10 points each:

[10] Name this contemporary British director of *Hunger* and *Shame*.

ANSWER: Terence Stephen "Steve" McQueen

[10] McQueen's choice of subject matter aligns him with this contemporary American director of *The Wrestler* and *Requiem for a Dream*.

ANSWER: Darren Aronofsky

[10] McQueen's influences include this American director of *Eyes Wide Shut*, *Full Metal Jacket*, and *A Clockwork Orange*.

ANSWER: Stanley Kubrick

6. The speaker of this poem addresses the "Sicilian shores like a marshy calm my vanity plunders vying with the sun." For 10 points each:

[10] Name this poem in which the speaker desires to open his mouth to the stars of wine and concludes by saying, “I go to see the shadow you have become.”

ANSWER: “Afternoon of a Faun” [or L’après-midi d’une faune]

[10] “Afternoon of a Faun” was written by this French poet of “A Throw of the Dice Will Never Abolish Chance.”

ANSWER: Stéphane Mallarmé

[10] Mallarmé is a representative of this literary movement. Its manifesto was written by Jean Moreas, and its other representatives include Charles Baudelaire and Paul Valéry.

ANSWER: Symbolism

7. This disease results in the abnormal transport of chloride across an epithelium. For 10 points each:

[10] Name this autosomal recessive genetic disorder that leads to mucus buildup in the lungs.

ANSWER: cystic fibrosis [or CF]

[10] This test for CF measures the concentration of chloride in its namesake liquid. In this test an electrode is placed over a gauze patch that contains a solution of electrolytes and pilocarpine.

ANSWER: sweat test

[10] In children, CF can coincide with a malabsorption problem for this fat-soluble vitamin, leading to blood coagulation problems.

ANSWER: vitamin K

8. Answer the following about intellectual property law, for 10 points each.

[10] According to this concept, creators of a work hold exclusive rights to it, determining who can adapt it, use it for commercial benefit, or perform it. Any use of the work falling outside its scope is known as “infringement” of it.

ANSWER: copyright

[10] The TSM test may be used to evaluate this intangible patentability requirement. In order to pass this requirement, a prospective patentable item needs to be sufficiently inventive.

ANSWER: non-obviousness

[10] This other domain of IP law concerns information that, once exposed, results in a business losing its economic advantage over its competitors.

ANSWER: trade secrets law [or confidential information; do not accept or prompt on “classified information”]

9. This author wrote a series of comic essays under the pen name “Samuel Marchbanks” and created Frank Cornish, an art historian who is secretly the painter of *The Marriage at Cana*. For 10 points each:

[10] Name this author who wrote about the magician Magnus Eisengrim in *World of Wonders*, the third volume of his *Deptford Trilogy*.

ANSWER: Robertson Davies

[10] Robertson Davies is an author from this country, along with Margaret Atwood and Alice Munro.

ANSWER: Canada

[10] Atwood wrote *The Year of the Flood* as a sequel to this post-apocalyptic novel whose two title characters are a biotechnologist named Glenn and a girl he finds on a child pornography website.

ANSWER: Oryx and Crake

10. This event destroyed St. Michael’s Church and it took a day to get a courier to Summerville to inform the rest of the world of it. For 10 points each:

[10] Name this 1886 disaster which nearly destroyed a Southern city.

ANSWER: Charleston Earthquake of 1886 [prompt on earthquake]

[10] This former slave planned a slave uprising against Charleston on Bastille Day 1822, but he was executed after two slaves revealed his plans.

ANSWER: Denmark Vesey

[10] Charleston was one of many cities where one of these events occurred in 1774. The most famous occurred in Boston Harbor in December 1773.

ANSWER: tea parties

11. Baldwin’s Rules for the formation of these structures favor exo-tet reactions and disfavor endo-tet reactions. For 10 points each:

[10] Name this type of structure possessed by cyclic compounds in organic chemistry.

ANSWER: a **ring**

[10] In cyclohexane, the ring can be visualized as a boat, a twist-boat, or far more commonly as this structure, which clearly shows the attachment of axial and equatorial substituents.

ANSWER: **chair** conformation

[10] This reaction is used to create a five-membered ring; specifically, it is the cycloaddition of an azide and an alkyne to form 1,2,3-triazole.

ANSWER: the **Huisgen** cycloaddition [or the **Huisgen** cyclization]

12. This composition includes a reworking of the “Fantasia on the Dargason” from the composer’s *Second Suite in F for Military Band*. For 10 points each:

[10] Name this four-movement composition opening with a jig in alternating 6/8 and 9/8 time. It is named for the girls’ school where the composer worked.

ANSWER: **St. Paul’s Suite**

[10] *St. Paul’s Suite* is a composition by this English composer of *The Mystic Trumpeter*, *The Wandering Scholar*, and *The Planets*.

ANSWER: Gustav **Holst**

[10] Many of Holst’s songs, including the “Battle Hymn,” “Creation,” and “Invocation to the Dawn,” used lyrics translated into English from this religious text by Holst himself.

ANSWER: **Rig Veda** [prompt on the **Vedas**]

13. Name these geographic areas relevant to Gandhi’s Salt March, for 10 points each.

[10] Gandhi started his salt march near this city, which was the capital of Gujarat before being replaced by the planned city of Gandhinagar.

ANSWER: **Ahmedabad**

[10] Gandhi’s march stopped at the city of Dandi, located by this body of water along India’s western coast.

ANSWER: **Arabian Sea**

[10] The Salt Act that prompted the march was named for this largest Indian city, also located by the Arabian Sea.

ANSWER: **Mumbai** [or **Bombay**]

14. This author wrote a story in which city-dwellers Mr. Nilson and Mr. Tandram converse for the first time after both appreciate the title tree, “The Japanese Quince.” For 10 points each:

[10] Name this founder of International PEN whose many novels, such as *The Man of Property*, *To Let*, and *Swan Song*, often concern the Forsyte family.

ANSWER: John **Galsworthy**

[10] On a trip aboard the *Torrens*, Galsworthy befriended this first mate, who was at the time working on *Almayer’s Folly*. You may know him better for *Heart of Darkness*.

ANSWER: Joseph **Conrad** [or Józef Teodor Konrad **Korzeniowski**]

[10] In *The Man of Property*, Soames Forsyte rapes this woman, his wife, for her affair with Philip Bosinney. She shares this name with a woman of mixed race possibly responsible for killing Clare in Nella Larsen’s *Passing*.

ANSWER: **Irene** Forsyte [or Irene **Heron**; or **Irene** Redfield]

15. This dynasty asked China for help in fending off an attack from King Dharmavamsa and the Medang kingdom, and ended after attacks from the Chola dynasty. For 10 points each:

[10] Name this dynasty that lasted from the 5th Century to the 11th century and spread out from the island of Sumatra.

ANSWER: **Srivijaya** [or **Sri Wichay**]

[10] The Srivijaya dynasty ruled parts of this modern day country, a Southeast Asian archipelago nation also home to the Saliendra dynasty.

ANSWER: Republic of **Indonesia**

[10] This city served as the primary capital of the Srivijaya dynasty. It was sacked by the Medang and eventually replaced as capital by Jambi.

ANSWER: **Palembang**

16. This speech concludes with the speaker noting that God only knows whether it is better to live or die. For 10 points each:

[10] Name this Platonic monologue in which Socrates defends himself against the charge of corrupting the youth of Athens.

ANSWER: Apology

[10] In this Platonic dialogue, Socrates uses the theory of anamnesis to and the “cyclical argument” to defend the idea of the immortality of the soul. It concludes with Socrates’s death.

ANSWER: Phaedo

[10] The “cold wind” argument illustrates the theory that knowledge is perception in this Platonic dialogue, which also treats the notions that knowledge is true judgment or true judgment with an account.

ANSWER: Theaetetus

17. This man’s return to England as papal legate was delayed by Charles V, who worried that he would oppose the marriage of Philip II. For 10 points each:

[10] Name this Archbishop of Canterbury from 1556 to 1558, the last Catholic to hold the position.

ANSWER: Reginald Pole

[10] Reginald Pole served under this Catholic Tudor queen, who earned her eponym for her persecution of Protestants.

ANSWER: Bloody Mary [or Mary I; or Mary Tudor; prompt on Mary]

[10] Before Pole’s return, Mary had the three Oxford Martyrs executed. They included Hugh Latimer, Nicholas Ridley and this man, who wrote the first two editions of the Book of Common Prayer.

ANSWER: Thomas Cranmer

18. The protagonist of this novel has a crazy brother named Jerry who once sewed together dried hamster skins to make a coat and gave it to a girl on Valentine’s Day. For 10 points each:

[10] Name this novel in which Nathan Zuckerman decides to write a book about his high school classmate, Seymour “Swede” Levov, whose life is destroyed when his daughter Merry gets involved in Vietnam War protests.

ANSWER: American Pastoral

[10] This Jewish-American author of *American Pastoral* described Moishe Pipik’s attempt to recreate the Diaspora in *Operation Shylock* besides writing *The Plot Against America* and *Portnoy’s Complaint*.

ANSWER: Philip Milton Roth

[10] Beloved by Harold Bloom, this Philip Roth novel tells of an aging ex-puppeteer named Mickey who goes into a crisis after the death of his Croatian lover Drenka.

ANSWER: Sabbath’s Theater

19. When these run underneath glaciers, they can form eskers. For 10 points each:

[10] Name these landforms whose competence describes the largest particles that they can carry and whose load is divided into dissolved, suspended, and bed types. They often meet the sea at a delta.

ANSWER: stream [or river]

[10] Eskers often form near this end of a glacier, sometimes called the snout, that is either advancing or retreating.

ANSWER: glacial terminus [or terminal zone]

[10] These landforms consist of unconsolidated glacial debris. The lateral forms of these objects are found on the sides of glaciers.

ANSWER: moraine

20. This artist created a backdrop for Marie Marchowsky’s performance “Labyrinth” and referenced Batman in the title of his *Gotham News*. For 10 points each:

[10] Name this abstract expressionist painter of *Zurich*, *Asheville*, and *Excavation*, who may be better known for his marriage to Elaine Fried and the *Woman* series.

ANSWER: Willem de Kooning

[10] Willem de Kooning’s rivals included this artist, known for *Autumn Rhythm* and *Moon Woman Cuts the Circle*, who sometimes threw paint at his canvasses, earning the nickname “Jack the Dripper.”

ANSWER: (Paul) Jackson Pollock

[10] Among de Kooning’s greatest influences was this Armenian-born artist of *Garden in Sochi*, whose grief at losing 27 paintings in a fire and enduring cancer is shown in *Agony*. He painted *The Liver is the Cock’s Comb*.

ANSWER: Arshile Gorky [or Vosdanig Manoug Atoian]

21. Famous brigades in this army included Hood's Texas Brigade and the Stonewall Brigade. For 10 points each:

[10] Name this main army of the Confederacy, which Robert E. Lee surrendered to Ulysses S. Grant at Appomattox.

ANSWER: Army of Northern Virginia

[10] After the Seven Days, Robert E. Lee divided the Army of Northern Virginia into two of these units under Stonewall Jackson and James Longstreet. These units were in turn divided into divisions.

ANSWER: corps

[10] After the death of Jackson, Lee divided the army into three corps, led by Longstreet, A.P. Hill, and this man. He was replaced by Jubal Early and assigned to the defenses of Richmond after losing badly in the Overland Campaign.

ANSWER: Richard Stoddert Ewell

22. A classic application of this estimates the value of pi by counting the number of points that fall within a circle.

For 10 points each:

[10] Name this collection of techniques used to estimate values using random sampling and simulation.

ANSWER: accept anything with Monte Carlo

[10] This construct precedes "Monte Carlo" in a method for sampling from arbitrary distributions. It is a discrete stochastic process that is memoryless, and so the next state depends only on the current state.

ANSWER: Markov chain

[10] Markov chain Monte Carlo works by sampling from this distribution of the Markov chain, which is nearly reached after the mixing time. Once it is reached, the Markov chain will remain in after all future transitions.

ANSWER: stationary distribution [or equilibrium distribution]