

VCU Closed
February 2, 2013

Packet by Matt Weiner and Eric Mukherjee (1 of 3)

1. A triangle is formed by dead logs across the ground and tall trees tilting towards each other along the sides in this painter's *In the Woods*. This artist broke with his mentor Peter Maverick after he received a commission to make an engraving of John Trumbull's *The Declaration of Independence*; his own historical paintings include *The Capture of Major Andre*. This author of the *Letters on Landscape Painting* showed several broken (*) tree trunks in front of a ravine, overlooked by a promontory where one man points with a walking stick and holds a canvas, in his painting of Thomas Cole and William Cullen Bryant. For 10 points, name this Hudson River School exponent who painted *Kindred Spirits*.
ANSWER: Asher Brown Durand

2. This author wrote a semi-authorized continuation of Richard Brautigan's *Trout Fishing in America* called *The Alligator Report*. He found out while watching the Oscars that his short story "Lieberman in Love" had been adapted for the screen. He created the character of "Truckbox Al" McClintok in his novel set in rural Alberta, *Box Socials*. He also used Alberta as the setting for his first collection of First Nations-themed stories, (*) *Dance Me Outside*. In a novel by this author, the protagonist travels to an elderly doctor's office in Chisholm, Minnesota after meeting J.D. Salinger at Fenway Park and succeeds in getting Moonlight Graham to play baseball again. For 10 points, name this author who wrote of a corn field that whispers "If you build it, he will come" in *Field of Dreams*.
ANSWER: William Patrick Kinsella

3. For a photon gas, this quantity is proportional to volume times temperature to the third power times the zeta function of 3, and unlike for an ideal gas this quantity is not conserved. Fock states are defined by a constant value for this quantity, and for a given state the operator for this quantity is equal to the product of the creation and annihilation operator for that state. This dimensionless quantity is conjugate to the (*) chemical potential, and the chemical potential is equal to the derivative of free energy with respect to this parameter; in other words, the chemical potential is the change in energy when this quantity is increased by one. For 10 points, name this quantity, which for one mole of substance is equal to Avogadro's number.
ANSWER: particle number [accept any answer along the lines of "number of particles" or "number of atoms" or "number of molecules"]

4. An unusual of these places, which was built to resemble a Gothic cathedral, is found in Gothenburg, Sweden. The dominant one of these institutions in the U.K. is found on the Isle of Dogs and is called Billingsgate. The largest one of these institutions in the world was built following the Great Kanto Earthquake and is known as Tsukiji; that one, in Japan, runs (*) auctions from 5:20 to 7:00 every morning. A facility which opened in the Bronx in 2005 now houses one which formerly was a center of Mafia activity. At the Pike Place one of these in Seattle, items are commonly tossed between employees yelling in unison. For 10 points, identify these facilities at which seafood is sold wholesale.
ANSWER: fish markets

5. This country's cabinet was challenged by the USSR in 1958 in the Night Frost incident, and three years later, a Soviet suggestion of a defense pact with this country led to the Note Crisis. Cold War politicians in this country were each expected to have a "kotiryssa," a personal Soviet contact. This country banned *The Manchurian Candidate* until 1989 as part of the (*) YYA Treaty policy, which also used the phrase "Germany or its allies" to implicitly bind it to military action against the U.S. Its policy of "bowing to the east without mooning the West" led to the coining of a term for insidious Soviet influence on a democracy, this country's namesake "-ization." For 10 points, name this country which pursued close relations with the Soviet Union under the "Paasikivi-Kekkonen line."

ANSWER: Finland

6. Two lovers in this play are nearly exposed when Sceledrus chases a monkey across a roof, leading to a scene in which a woman pretends to be her own twin sister by quickly running back and forth through a hole in the wall and changing clothes. A subsequent plot begins when a ring is sent to the title character, supposedly from the courtesan Acroteleutium. In this play, the slave Palaestrio is captured by pirates while attempting to expose a kidnapping, which separates (*) Philocomasium from Pleusicles. All ends well when the title character is tricked into entering the house of Periplecomenus and then severely beaten by all the other characters. For 10 points, name this Plautus play in which the title character, Pyrgopolynices, abducts a woman from Athens, and which gives its name to a stock military character.

ANSWER: Miles Gloriosus [or *The Braggart Soldier* or stuff like that]

7. In the Book of Enoch, this character travels to the desert of Dudael in order to perform the first scapegoat ritual on Azazel. This character is usually identified with the emissary who descended into the pool of Bethesda in John 5. An Islamic equivalent to this character takes the place of Gabriel in sounding the trumpet of judgment day from Jerusalem. In one passage, he disguises himself as (*) "Azarias the son of Ananias." Depictions of him with a fish refer to his instructions to use a fish's gallbladder in another appearance, where he saves Sarah from the demon Asmodeus and heals the blindness of Tobit. For 10 points, name this archangel, the equivalent to the Islamic Israfil.

ANSWER: the archangel Raphael [or Israfil before it is read]

8. During this battle, Heinz Zigler made a fifty-mile advance and destroyed a hundred tanks; also as part of the operation that included this battle, other areas between Faid and Gafsa were swiftly taken. This battle took place at the same time as This battle, which targeted a two-mile area in the Dorsal Mountains, was a succesful attempt to breach the (*) Mareth Line. For 10 points, name this February 14, 1943 victory for Erwin Rommel which reversed some gains made at El-Alamein, was the first American defeat of the Africa campaign in World War II, and took place in Tunisia.

ANSWER: Battle of the Kasserine Pass

9. Alpha-boranophosphates are a novel class of compounds that inhibit this protein. This protein commonly acquires mutations at T215, M41, and K65 during therapy. The version of this enzyme encoded by M-MLV has an error rate around one in seventeen thousand, and other versions of this protein have a domain that automatically degrades heteroduplexes. This enzyme, which is inhibited by efavirenz and tenofivir, is used in the laboratory to create (*) cDNA libraries. LINE elements and class I transposons with long-terminal repeats code for a version of this protein in order to replicate themselves. Another compound which inhibits this enzyme is activated by thymidylate kinase and acts as a chain-terminator; that compound is a nucleoside analog called AZT. For 10 points, name this enzyme which creates DNA from RNA, used by retroviruses like HIV.

ANSWER: reverse transcriptase

10. One song by this name contains the compliment "bass in the trunk you remind me of my Jeep" and is by Far East Movement. Another song by this title begins "they say he do a little of this, he do a little of that" and was a collaboration between Ciara and Field Mob. A Cure song by this name consists mostly of an ad for cake decorating supplies, and a song by this title which had all of its copies seized by British police bragged of bestiality with sheep and goats. That song of this title, by the Anti-Nowhere League, has been covered as a B-side several times by (*) Metallica. Perhaps the most well-known song with this title appeared on the 2008 album *Funhouse*, and claims "I'm gonna drink my money, I'm not gonna pay his rent." For 10 points, give this common song title, which applies to a song proclaiming "I'm still a rock star" and "I'm gonna start a fight" by Pink.

ANSWER: "So What?"

11. In this story, the central characters hear about a man who was hanged on makeshift gallows after being mistaken for a looter by the owner of a burning house. The cobbler Pedrillo is responsible for the final death in this story, which occurs after the sword of naval officer Don Alonzo is used to kill seven members of an angry mob. Felipe is raised as the nobleman (*) Fernando Ormez's son at the end of this story, in which Pedrillo murders another infant, Juan, shortly after the protagonist and Donna Costanza are killed with a club by the protagonist's father. The title event interrupts the jailhouse suicide of Jeronimo Rugero and postpones the beheading of Josephe Asteron, a Carmelite nun who had given birth on the steps of the local cathedral. For 10 points, name this short story about a natural diaster by Heinrich von Kleist.

ANSWER: "The Earthquake in Chile" [or "Das Erdbeben in Chili"]

12. At the first performance of an overture to this play, the composer was only on part of the bill, and had to play the violin in a performance of Beethoven's Ninth immediately after the overture debuted. One C-major piece written to accompany this play was transcribed with the "Dance of the Elves" by Liszt and as a piano piece by Vladimir Horowitz. Songs written to accompany this play include "What (*) hempen homespuns" and "Over hill, over dale," as well as one that proclaims "thorny hedgehogs, be not seen" and warns against those "with double tongue," "You Spotted Snakes." Music to this play was developed from an overture written sixteen years before the full incidental score. For 10 points, name this play for which a noted "Wedding March" was written by Felix Mendelssohn.

ANSWER: A Midsummer Night's Dream

13. **One king of this dynasty failed in war against the Arab king Obedas and then found himself involved in a civil war that ended when he crucified eight hundred opponents who had allied against this dynasty with Demetrius III. Another king from this dynasty ordered the forced conversion of Idumaea. This dynasty of Alexander Jannaeus and John (*) Hyrcanus was ruling when the Sadducees and Pharisees coalesced as major factions, and this house came to an end when Marc Antony ordered the execution of Antigonus. It was founded in the wake of Judah Maccabee's victory in the Hannukah story. For 10 points, name this dynasty of Judean priest-kings that ruled from 143 to 37 BCE.**

ANSWER: Hasmonean dynasty

14. **The *Commissioner v. Harman* case held that in states where this status is optional, it cannot be invoked at state level and then ignored when paying federal income tax. States which subscribe to this legal concept must use methods such as Perieria or Van Camp accounting. A 2011 settlement avoided settling the issue of whether the Los Angeles Dodgers had fallen into this status. When a person who would normally be subject to this legal regime is (*) living elsewhere, its "quasi-" form can occur. Wisconsin is the easternmost of the nine states that use this system, which is contrasted with common law or "separate" notions of ownership. For 10 points, identify this legal principle effective in Spanish and French-colonized states, under which all real and personal goods acquired during a marriage are considered to be exactly equally owned by the two spouses.**

ANSWER: community property

15. **Wedderburn's little theorem says that all finite skew ones are finite ones. The primitive element theorem states that a primitive element exists if there are a finite number of intermediate ones of these structures between one of these and a given extension. Zorn's lemma states that all of these have an algebraic closure. The spectrum of these objects contains exactly (*) one point, and extensions of these objects are the subject of Galois theory. Finite ones necessarily have a number of elements equal to a power of a prime. The rational numbers make up one of these, but not the integers, since the latter does not have multiplicative inverses. For 10 points, identify these algebraic structures, which consist of a set of numbers that is closed and has inverses under both addition and multiplication.**

ANSWER: field

16. **Adrastus betrothed a daughter to Polynices after remembering a prophecy about seeing a boar on the shield of Tydeus and this animal on Polynices's shield. The stuttering of Battus was cured by seeing one of these animals, and Battus founded a city named for a maiden that Apollo spotted wrestling one of them. The Hyades were created as stars after Hyas was (*) killed by one of these animals, which pulled Rhea's chariot. After having sex in a temple of Zeus, Hippomenes and Atalanta were turned into these animals. A gate named after these animals protected Mycenae. For 10 points, name this animal whose impenetrable skin was avoided when Herakles throttled one to death in the labor of the Nemean one.**

ANSWER: lions [or lionesses]

17. This man's most notable command came after Jan Smuts turned it down. This victor at Mughar Ridge spent six years as high commissioner in Egypt, including during the country's transition to independence. After one battle, this man dismounted to enter the (*) Jaffa Gate, recalling the scandal twenty years previous when Kaiser Wilhelm entered the same city on horseback. After disagreeing with Douglas Haig on strategy at the Battle of Arras, he became commander of the Egyptian Expeditionary Force, in which role he won the Battle of Gaza. For 10 points, name this British general who then captured Jerusalem and defeated Ottoman forces at the 1918 Battle of Meggido.

ANSWER: Edmund Allenby

18. During one song in this show, a character recalls "I remember my mother dug earrings out of the car" and remembers a place where "everythin was beautiful." One song in this musical involves a character complaining about her own inability to sing, only for (*) Al to return each line to the tune. A scene in this musical consists of several characters remembering their secondary school days in the songs "Nothing" and "Hello Twelve, Hello Thirteen, Hello Love." Cassie was previously the live-in girlfriend of Zach in this musical, which ends with a reprise of "One." For 10 points, name this Marvin Hamlisch-scored musical about the casting of the dancers in a Broadway show.

ANSWER: A Chorus Line

19. One method of synthesizing this functional group creates a sulfinic acid as a byproduct. These compounds undergo a cycloaddition with alkynes in order to form a five-member ring in a reaction that is particularly useful in click chemistry. Adding triphenylphosphine to these compounds reduces them to amines via an iminophosphorane intermediate in a reaction named for (*) Staudinger. Heating one of these compounds creates an isocyanate via the Curtius rearrangement, and the simplest of these compounds is found in airbags as a propellant. For 10 points, name this highly toxic functional group consisting of three nitrogen atoms bonded to each other.

ANSWER: azide

20. At one point in this book, the narrator regains the ability to focus after seeing two people meet and get into a cab. This book approvingly cites the portrayal of friendship in *Diana of the Crossways* and creates a character who does not mind being called Seton, Beton, or Carmichael. This treatise examines the biases of Professor von X and the quality of food at the fictional (*) Fernham College. This book finds that 1470 and 1670 are the first two mentions of the group it investigates in George Trevelyan's *History of England* and predicts the suicide of the fictitious Judith Shakespeare. It concludes that the title place and five hundred pounds a year are what is required for a woman to write fiction. For 10 points, name this analysis of women in literature by Virginia Woolf.

ANSWER: A Room of One's Own

TIEBREAKER/EXTRA

One writer from this country wrote an autobiography claiming that his cancer was caused by being "educated to death" in a wealthy neighborhood, entitled *Mars*. A public intellectual here complained of the geraniums on this country's houses making this country resemble Auschwitz. Another author from here wrote a play in twelve people monologue on their guilt for the murder of Andri, who was secretly a child of both the "Jews" and the "Blacks." That author from this country's (*) Gruppe Olten also wrote about the death of Sabeth, who had accidentally fallen in love with her father, the cancer-stricken UNESCO engineer Walter Faber. For 10 points, name this home country of the author of *I'm Not Stiller*. Max Frisch, as well as Friederich Durenmatt.

ANSWER: Switzerland

1. This woman's daughter is smothered by Nancy Mannigoe as a result of letters she wrote to her lover, Alabama Red. For 10 points each:

[10] Name this character, who becomes the wife of Gowan Stevens.

ANSWER: Temple Drake [or Temple Drake]

[10] Temple Drake, Gowan Stevens, and others such as the Snopes and Sutpen families live in this fictional Mississippi county, like most Faulkner characters.

ANSWER: Yoknapatawpha County

[10] In 2012, Faulkner's estate filed a lawsuit against Woody Allen's producers for paraphrasing a famous line from *Requiem for a Nun* about whether this phenomenon is "dead."

ANSWER: the past

2. Albert Einstein planted a palm tree at this university, where the Lempel-Ziv compression algorithm was discovered. For 10 points each:

[10] Name this institute of technology located in Haifa, Israel. Daniel Shechtman, the discoverer of quasicrystals, is also on its faculty.

ANSWER: Technion – Israel Institute of Technology

[10] Another member of the Technion faculty was this really prolific Hungarian mathematician, who lends his name to a distance metric describing how many collaborators connect a given mathematician and him.

ANSWER: Paul Erdos

[10] Another member of the Technion faculty, Avram Hershko, help characterize this complex, to which proteins tagged with ubiquitin are sent for degradation.

ANSWER: proteasome

3. Name these landscape architects, for 10 points each.

[10] This Japanese-American namesake of a one-legged table designed sets for Martha Graham and several "sunken gardens," including one at Yale and one at the Chase Manhattan plaza.

ANSWER: Isamu Noguchi

[10] This architect of the Peters House wanted to use a new building method known as the "knitlock system," but had to settle for designing Canberra instead.

ANSWER: Walter Burley Griffin

[10] The very extensive designs of this man include Boston's Emerald Neckale, the campuses of Chicago and Cornell, and Central Park.

ANSWER: Frederick Law Olmsted

4. T. Sempronius Longus and Scipio Africanus were the losers of this battle, and the majority of their troops were drowned instead of fleeing to Placentia. For 10 points each:

[10] Name this 218 BCE victory for Hannibal, where Numidian cavalry helped defeat a Roman army that had just waded through freezing water.

ANSWER: Battle of the Trebbia River

[10] This brother of Hannibal was tasked with leading the initial ambush of the battle. One of the losers at Ilipa, this man survived the battlefield and died while travelling back to Carthage in 205.

ANSWER: Mago

[10] Both Hannibal and Mago were the sons of this general, whose faction had taken control of Carthage and begun the conquest of Hispania.

ANSWER: Hamilcar Barca

5. This being make loud noises with their lion's teeth, and they were born after the disruption of Diti's plan to remain pregnant for one hundred years. For 10 points each:

[10] Name these sons of Rudra, storm gods who follow Indra around.

ANSWER: **Maruts**

[10] George Dumézil claims the Maruts are analogous to these fighters in Norse myth. These are the people slain in battle who perpetually fight and eat in Valhalla.

ANSWER: **Einherjar**

[10] Both the Maruts and the Einherjar are similar to this European folk belief in a procession of heavily armed people that pursues its quarry across the sky.

ANSWER: the **Wild Hunt**

6. The earliest one of these objects discovered was 3C 273, and their spectra displays a suppression around $z=6$ due to reionization. For 10 points each:

[10] Name this type of active galactic nucleus, radio sources considered to be among the brightest, most distant objects in the universe.

ANSWER: **quasar**

[10] That aforementioned feature of quasar spectra, called the Gunn-Peterson trough, occurs at wavelengths less than that of this electronic transition in hydrogen. It occurs at about 1216 angstroms.

ANSWER: **Lyman-alpha** line

[10] The recent discovery of the Huge Large Quasar Group has cast a lot of doubt on this principle, which states that the universe is homogenous on the largest length scales.

ANSWER: **cosmological** principle

7. This language, rather than Persian, was the lingua franca of the Achaemenid Empire. For 10 points each:

[10] Name this language, which survives today as Palmyrene and Syriac, and is often called the language spoken by Jesus.

ANSWER: **Aramaic**

[10] A form of Aramaic without guttural consonants is used today as the liturgical tongue of this religious community, which venerates John the Baptist and follows the Ginza Rabba. There are about seventy thousand of these people, who live in Iraq and Iran near the Shatt al-Arab.

ANSWER: **Mandaeans**

[10] Biblical passages in Aramaic are traditionally pronounced using this system for Hebrew, which is the only one that effectively survives in the modern world. In ancient times, the Babylonian and Palestinian systems of vocalization competed with it.

ANSWER: **Tiberian** vocalization

8. This woman attempted to make the duke of Choiseul a new power after replacing Marie of Poland in the king's favor. For 10 points each:

[10] Name this tall hairstyle namesake, the most influential mistress of Louis XV.

ANSWER: Madame de **Pompadour** [or Jeanne-Antoinette **Poisson**, marquise de Pompadour]

[10] Pompadour fell from esteem after engineering this reversal of alliances, which put France and Austria on the same side in the disastrous Seven Years War.

ANSWER: the **Diplomatic Revolution**

[10] Austria's role in the Diplomatic Revolution was spearheaded by this foreign affairs minister, who created the first Austrian navy and ruled during Joseph II's periods of disinterest.

ANSWER: Prince **Kaunitz**

9. This C minor work was to be dedicated to Franz Liszt, who turned the honor down. For 10 points each:

[10] Identify this symphony, which is nicknamed for its liberal use of gaps in the music. One of its composers famous revisions removed ten percent of its length and changed its slow movement from an adagio to an andante in 1877.

ANSWER: the **Symphony of Rests** [or the **Pauses Symphony** or the **Pausensinfonie**; accept but do not say **Bruckner's Second** Symphony]

[10] This composer of the Third or "Wanger" Symphony and a Symphony Number Zero wrote the Symphony of Rests.

ANSWER: Anton **Bruckner**

[10] Due to its inspiration by medieval tales, Bruckner promoted this nickname for his fourth and most often performed symphony.

ANSWER: "**Romantic**" symphony

10. This novel is set in Hong Kong, where the semi-autobiographical protagonist argues with Margarethe in a hotel room. For 10 points each:

[10] Name this novel which frequently juxtaposes sexual encounters with scenes from the Cultural Revolution.

ANSWER: **One Man's Bible** [or **Yigeren de shengjing**]

[10] This author of *One Man's Bible* had previously used similar themes in *Soul Mountain*.

ANSWER: **Gao Xingjian**

[10] The protagonist of *Soul Mountain* is initially given this name. This is also the main character of Bertene Juminer's "The Echo" and Jay McInerney's *Bright Lights, Big City*.

ANSWER: "**you**" [or the **second person**]

11. Darrell Griffith, Billy Thompson, and Pervis Ellison were some of the heroes of teams from this school, which defeated UCLA and Duke six years apart in national finals. For 10 points each:

[10] Name this school that won the 1980 and 1986 NCAA basketball championships as representatives of the erstwhile Metro Conference.

ANSWER: **Louisville** University

[10] Both championship teams from Louisville were coached by this John Wooden disciple. He and Rick Pitino are the only coaches Louisville has had since 1971.

ANSWER: Denny **Crum**

[10] Louisville reached the Final Four again in 2005 and 2012; in 2012, they lost to in-state rival Kentucky in one semifinal, while Kansas won the other. The last team in the Final Four was this squad, led by Deshaun Thomas and Jared Sullinger.

ANSWER: **Ohio State** [or **OSU** or **Buckeyes**]

12. These molecules contain a constant region that determines its isotype and a hypervariable region that is created from the random assortment of variable, diversity, and joining regions. For 10 points each:

[10] Name these Y-shaped proteins secreted by B-cells that recognize antigens circulating in the bloodstream.

ANSWER: **antibody** or **immunoglobulin**

[10] B cells are divided into two subclasses, the memory type and this other type, which secrete large quantities of immunoglobulin. These cells rapidly divide in multiple myeloma.

ANSWER: **plasma** B cells [or **plasmacytes** or **plasmablasts** or **effector** B cells]

[10] Cleaving an antibody using papain creates the Fc fragment and two of these antigen-binding fragments.

ANSWER: **Fab** fragments

13. This speech compares its two title items by saying neither is thrown until a target is seen, and it predicts a "non-nonviolent army" that will have one-way tickets to Washington. For 10 points each:

[10] Identify this 1964 speech that clarifies its speaker's continued identification as a Muslim and calls for "action on all fronts by whatever means necessary."

ANSWER: "The **Ballot or the Bullet**"

[10] Ten months after delivering "The Ballot or the Bullet," this author of the speech was killed in a Harlem ballroom. He had previously been "National Representative" of the Nation of Islam.

ANSWER: **Malcolm X** [or Malcolm **Little**]

[10] "The Ballot or the Bullet" was delivered at the Cory Methodist Church in this city. Its racial history includes electing Carl Stokes as the first black mayor of a large American city, the "Glenville Shootout" incident involving the radical organization of Fred Evans, and the 1966 Hough Riots.

ANSWER: **Cleveland**, Ohio

14. Karl Popper denied this issue by claiming the underlying process is irrelevant to science, and it was first identified by David Hume. For 10 points each:

[10] Identify this philosophical question about whether and how past evidence can predict the future, which is starkly illustrated by asking whether a non-raven item proves the blackness of ravens.

ANSWER: the **problem of induction**

[10] The so-called "new riddle of induction" was formulated using the example of strange emeralds that exist in these two fictional colors.

ANSWER: **grue** and **bleen** [don't accept partial answers but order not important]

[10] This philosopher put forth the "grue and bleen" argument in his book *Fact, Fiction, and Forecast*. Contemporary philosophers might be more interested in his aesthetic works such as *Languages of Art*.

ANSWER: Nelson **Goodman**

15. One of this author's stories contrasts the dutiful Captain Khlopov with the vainglorious Lieutenant Rosencranz, and another discusses a war with Imam Shamil in which the title character makes multiple defections. For 10 points each:

[10] Name this author of the short stories "The Raid" and "Hadji Murad."

ANSWER: Leo Nikolayevich **Tolstoy**

[10] In this Tolstoy story, a foe of milk-vessels proposes to the cook Ustinya but falls off the roof and dies before the marriage.

ANSWER: "**Alyosha the Pot**" [or "**Alyosha Gorshok**"]

[10] This Tolstoy story is about Pahom, who is constantly trying to enlarge his agricultural holdings; Satan tricks him into running himself to death, after which a servant answers the title question with "six feet from his head to his heels?"

ANSWER: "**How Much Land Does a Man Need?**" [or "**Mnogo li cheloveku zemli nuzhno?**"]

16. This even commenced in March 1739 and resulted in the Koh-i-Noor diamond being taken back to Masshad. For 10 points each:

[10] Name this looting episode in which an Afsharid conqueror's troops killed around thirty thousand people to celebrate their victorious invasion.

ANSWER: **Nadir Shah's sack of Delhi** [or equivalents that mention both **Nadir Shah** and **Delhi**; prompt on partial answer]

[10] The way to Delhi was cleared when Nadir Shah defeated impotent Mughal emperor Muhammad Shah at this battle seventy miles north of the city.

ANSWER: Battle of **Karnal**

[10] Another item taken back to Iran from Delhi was this seat, upon which Mughal emperors were crowned. Though this item has disappeared from history, a reconstruction was used for future Iranian rulers.

ANSWER: the **Peacock Throne**

17. This city was over forty percent Jewish at the turn of the twentieth century, though a notorious 1903 pogrom and a three-year Nazi occupation displaced almost all of its Jews by 1944. For 10 points each:

[10] Name this city, found just south of Lake Ghidighici, which ranks ahead of Tiraspol and Balti as the most populous in its country.

ANSWER: **Chisinau** [or **Kishinev**]

[10] Chisinau is found in this country, which is found between Romania and Ukraine and was ruled by Communists throughout the 2000s.

ANSWER: **Moldova**

[10] This area along the Ukrainian border controls the city of Bender and functions as a de facto independent state, though most international bodies recognize it as part of Moldova. It seceded from Moldova during the breakup of the USSR in opposition to Moldova's Romania-friendly language policies.

ANSWER: **Transnistria** [or **Trans-Dniester**]

18. This statement puts an upper bound on the efficiency of a Carnot engine. For 10 points each:
[10] Name this law, which in one formulation states that for a closed system, the entropy will always increase with time.

ANSWER: **Second Law of Thermodynamics** [prompt on partial answers]

[10] This restatement of the Second Law of Thermodynamics states that the line integral of dQ over T for a cyclic process is equal to or less than zero.

ANSWER: **Clausius'** theorem

[10] Another extension of the Second Law, the fluctuation theorem, is used to derive these relations between linear transport coefficients and correlation functions at equilibrium.

ANSWER: **Green-Kubo** relations

19. This man created the fictional plays *The Cure of Avarice* and *The False Servant* within his story of the assassination of Emperor Domitian by the performer Paris. For 10 points each:

[10] Name this playwright of *The Roman Actor*, who also depicted Camiola's refusal to help Bertoldo break his vow to the Knights of Malta in *The Maid of Honor*.

ANSWER: Philip **Massinger**

[10] Philip Massinger is probably better-known for depicting Giles Overreach's attempt to acquire the estate of Lady Allworth in this play.

ANSWER: A **New Way to Pay Old Debts**

[10] Massinger collaborated with this author on *The Sea Voyage*, *The Prophetess*, and *The Custom of the Country*. This man is also known for teaming with Francis Beaumont on *Philaster* and *The Maid's Tragedy* and with Shakespeare on *Two Noble Kinsmen*.

ANSWER: John **Fletcher**

20. This painter showed two men dressed as medieval knights hanging out with three naked ladies wearing necklaces in his version of *The Judgment of Paris*. For 10 points each:

[10] Name this "swiftest of painters," who created portraits of contemporary German political figures such as Henry the Pious and Katharina von Mecklenburg.

ANSWER: Lucas **Cranach** the Elder

[10] Perhaps Cranach's most famous subject was this guy, also painted by Hans Holbein. This religious leader was almost always depicted in his floppy black hat.

ANSWER: Martin **Luther**

[10] A lace collar and a nearly invisible draping are the only things worn by the title goddess of this Cranach painting, who has wavy red hair. On a pedestal to the left, it shows the much smaller other title character.

ANSWER: **Venus and Cupid**

EXTRA

Original viewers of this movie would have understood that its title was an ironic reference to a now-obscure 1944 popular psychology book by Robert Lindner. For 10 points each:

[10] Name this movie in which Buzz Gunderson dies playing chicken on a cliffside and Plato dies in a confrontation with police, leaving troubled Jim to reconcile with his parents. It includes a symbolic scene at the Griffith Observatory.

ANSWER: **Rebel Without a Cause**

[10] This star of *Rebel Without a Cause* had previously portrayed Cal Trask in *East of Eden*. He died in a car crash before *Rebel Without a Cause* was released.

ANSWER: James **Dean**

[10] This auteur of *Johnny Guitar* and *Bigger Than Life* directed *Rebel Without a Cause*.

ANSWER: Nicholas **Ray**