

VCU Closed

February 2, 2013

Packet by Matt Weiner and Eric Mukherhjee (3 of 3)

1. One opera by this man ends with an explosion that destroys a palace in which all the major characters were attending a party. That opera by this man also includes the chorale "Ad nos ad salutarem" and a crazy scene in which a bunch of Anapabtists go figure-skating. This man, who depicted John of Leyden's takeover of Munster in that opera, was targeted by name in the essay *Opera and Drama*, two years after another polemic of which he is believed to have been the principal target, (*) *On Jewishness in Music*. This composer of *The Prophet* and *The Crusader in Egypt* also showed the singing of "God wants blood!" and the dramatic tolling of bells in an opera where Raoul and Valentine are among the many killed on St. Bartholomew's Day. For 10 points, name this composer of *Les Huguenots*.

ANSWER: Giacomo Meyerbeer

2. This company caused a scandal in 1956 when it hired convicted war criminal Fritz ter Meer as its chairman. The founder and namesake of this company made his fortune importing aniline and fuchsine and founded this company to make more industrial dyes. For twenty years, it marketed diacetyl morphine under what was originally a trademark of this company, (*) "heroin." In 1897, its employee Felix Hoffman synthesized acetylsalicyclic acid, and shortly thereafter, this company trademarked the name "aspirin." For 10 points, name this former component of IG Farben, a large German pharmaceutical concern.

ANSWER: Bayer AG

3. One writer from this country recently authored a work of Homeric criticism that labels Greek epics "the primordial spring without which there would have been no culture" entitled *Homer's Iliad and Odyssey: A Biography*. This country is also home to the author of *Abaddon the Exterminator*, who described Fernando's phobia in the "Report on the (*) Blind" section of his novel about Martín Castillo, *On Heroes and Tombs*. The "shadow" of one of this country's literary archetypes was discussed in *Don Segundo Sombra*, which takes a more negative view of the kind of person described in *Martin Fierro*. For 10 points, name this country in which *The Invention of Morel* was written by Adolfo Bioy Casares, the home of gaucho literature.

ANSWER: Argentina

4. A mixture of this compound and potassium hydroxide is used to formylate phenols in the Reimer-Tiemann reaction. Bottles of this substance usually contain ethanol or amylene as a stabilizer, because this compound reacts with oxygen to form phosgene. A 25 to 24 to 1 mixture of phenol, this substance, and (*) isoamyl alcohol is used in DNA extractions. A version of this compound containing a single deuterium atom is a common solvent in NMR spectroscopy, and this substance is also used it was widely used as an anesthetic before the discovery that it causes liver failure. For 10 points, name this simple halogenated hydrocarbon with formula CHCl_3 .

ANSWER: chloroform [or trichloromethane]

5. Nicolas Despreaux re-ignited interest in this concept by translating an early work about it into French. Jean Lyotard claimed that this quality creates aporia and that the emphasis on this quality defined Modernism in a book called "Lessons on the Analytic" of this concept. Schopenhauer listed weak versions of this sensation such as a still desert and light reflecting from stones. The "mathematical" and "dynamical" forms of this concept are listed in Kant's (*) *Critique of Judgment*. A treatise which laments the declining quality of rhetoric and contains one of the first synthesis of Hellenistic and Jewish sources defines this concept as writing which causes one to identify with the writer's passions, and was written by Longinus. For 10 points, identify this philosophical concept, which Edmund Burke wrote about in conjunction with "the beautiful."

ANSWER: the sublime

6. This character is questioned by Lady Nijo after arriving last to the dinner party in Caryl Churchill's play *Top Girls*. A fight over a character with this name leads to the shooting at the end of *God's Little Acre*. The song "Golden Slumbers" is based on a song that appears in a play by Thomas Dekker about this character, who, in another story, is presented with a fake (*) Papal bull annulling her marriage. She is instructed to prepare her home for a wedding to a twelve-year-old by her husband, Gualtieri, in a story that was adapted into "The Clerk's Tale." For 10 points, name this character from the Decameron who is reunited with her children after years of tests by her husband, which demonstrate her "patience."

ANSWER: Griselda

7. One episode of violence in this country led to the establishment of the National Operations Council following the declaration of the "Darurat," or "national emergency," following the ethnic violence in the May 13th incident. This country practices a form of positive discrimination for its "Bumeputera" indigenous population, under the ideology of (*) "katuanan," part of its New Economic Policy. This country has a rotating constitutional kingship known as the Yang di-Pertuan Agong. In the 1990s, this country's longtime prime minister, who has also attracted attention for strident anti-Jewish remarks, launched a bizarre crusade to imprison his chief critic, Anwar Ibrahim, by charging him with sodomy. For 10 points, name this country still under the influence of Mahathir bin Mohammed, which once controlled neighboring Singapore.

ANSWER: Malaysia

8. A variation of this technique using orthogonally polarized emissions is named for Sisyphus, and this technique can be followed up by the resolved sideband method. The lower limit of this technique is equal to Planck's constant times the natural linewidth divided by two times the Boltzmann's constant. The apparatus in this technique is tuned to just below the atomic transition energy so that particles moving towards the source will absorb more (*) photons. This technique, which was developed by Philips, Cohen-Tannoudji, and Chu, was used along with a magnetic trap by Cornell and Wiemann on a gas of rubidium atoms in order to create the first Bose-Einstein condensate. For 10 points, name this technique that uses a coherent beam to chill a sample to several hundred microkelvin.

ANSWER: laser cooling [or Doppler cooling]

9. Several of these works by this composer contain allusions to the similar "wind-band" piece of the composer's instructor. A section of one of these works by this composer that uses violins in the Hosanna section to represent the chirping of birds causes that one to be known as the "Sparrow." The "Et incarnatus est" section of another of these works by this composer was sung by the composer's wife, as it was written to fulfill a vow made to write one of these works when this composer arrived in Vienna. The most noted of these works by this composer uses a double fugue for the (*) Kyrie and only goes eight measures into the Lacrimosa before ending; that one was later completed by Franz Sussmayr. For 10 points, identify this kind of work and composer, which includes the Great C minor one and an unfinished Requiem.

ANSWER: masses of Wolfgang Amadeus Mozart

10. This man spent ten years living with his son Branko and working as a beekeeper, and some claim that his personality underwent a change after the 1994 suicide of his daughter Ana. When this man was arrested, his first words were "I could have killed ten of you if I wanted." This man was being prosecuted by Dermot Groome, and he failed to get judge Alphonse Orie removed. His trial was adjourned on May 17, 2012 after (*) errors in discovery, and has not yet resumed despite a six month timeframe. He was found in Vojvodina in May 2011, less than two years after the arrest of the similarly charged Radovan Karadzic. For 10 points, name this Serbian war crimes defendant, who orchestrated the Srebrenica massacre during the Bosnian war.

ANSWER: Ratko Mladic

11. This author's short stories include one in which a man on vacation berates his girlfriend for refusing to defecate in the same house as him and another about Wally Mars secretly replacing a sperm donor's product with his own and impregnating Tomasina. This author of "Baster" re-used the couple from "Extreme Solitude," Madeleine and the bandana-wearing Leonard, in his attempt to write a book with the "same ideas" as a Jane Austen novel, which focuses on three recent (*) Brown University graduates. He also wrote about Trip Fontaine returning his date late from a curfew, which accelerates the deterioration of Grosse Pointe's Lisbon family. For 10 points, name this author of *The Marriage Plot* and *The Virgin Suicides*, who discussed the hermaphrodite Cal Stephanides in *Middlesex*.

ANSWER: Jeffrey Eugenides

12. One man of this surname wrote the decision in the case of *U.S. v. One Package*, which prevented the Comstock Act from being used against contraceptives, and also cited the "foolishness" of proscribing, Byron, Southey, or "Queen Mab" in his opinion in the obscenity case *U.S. v. One Book Entitled Ulysses by James Joyce*. The cousin of that man from this family, Augustus Noble, became popular by giving the "spirit of liberty" speech in Central Park in 1944; the next year, in the (*) Alcoa case, he declared all monopolies unlawful, overturning the "rule of reason" standard. For 10 points, give this common surname of two Second Circuit justices, the latter of whom, often called the most important non-Supreme Court justice in American history, was Billings Learned.

ANSWER: Hand family

13. This actor appeared as a human-kangaroo hybrid with dreadlocks and a bandana in *Tank Girl*. He plays a character who is trying to get everyone to call him Night Train but is really named Chauncey in *Who's the Man?* He appears wearing a series of shoulder pads and belts around his torso with no shirt as an unnamed performer at the Radiotron club in *Breakin' 2: Electric Boogaloo*. In one of his most prominent film roles, he is (*) hunted through the Pacific Northwest by Charles Dutton and Rutger Hauer in *Surviving the Game*. This actor's best-known role is a character who has a distant relationship with his gay son Ken and uses his former contacts in the Marines and the narcotics bureau to solve cases; that character played by this actor also revealed that he was a Republican to his partner, John Munch. For 10 points, name this performer who plays Odefin Tutuola on *Law & Order: Special Victims Unit*, despite singing the song "Cop Killer" with his band Body Count.

ANSWER: Ice-T [or Tracy Marrow]

14. One person who was charged with containing this event was banished to Feather Mountain after failing. That person spent several years reforming the calendar and standardizing weights and measures before directly engaging with this phenomenon. Advice on dealing with this event was provided by the Four Mountains, and the use of a magic substance called (*) Xirang to control this event was proposed by Gun. It was finally contained after thirteen years of work unblocking Mount Longmen, overseen by Yu the Great. For 10 points, name this cataclysm in Chinese mythology, which was solved with the invention of irrigation canals and the rise of the Xia Dynasty.

ANSWER: the great Chinese flood

15. Polymorphisms in CCHCR1 confer susceptibility to this disease. A form of this disease that occurs almost exclusively in pregnant women is impetigo herpetiformis. Histologically, this disease is characterized by Munro microabscesses and regions of both hyperkeratosis and parakeratosis, and it is diagnosed by finding clubbed rete pegs. A form of arthritis partly named for this disease is associated with (*) HLA-B27. Sufferers of this disease show bleeding when affected areas are poked with an instrument, a sign named for Auspitz. This disease, which comes in plaque, guttate, and erythrodermic, typically shows red silvery plaques on its affected organ. For 10 points, name this skin disease.

ANSWER: Psoriasis

16. This painter used stormy weather to represent his wife's death in his Hadleigh Castle. This man set up in Hampstead Heath to create numerous "cloud studies" during his "skying period." Because many of his works were commissioned by Reverend John Fisher, he often painted a blue-roofed building with a massive central spire, (*) Salisbury Cathedral. One of his "six-footers" shows a shrub-surrounded cottage belonging to Willy Lott, to the left of a shallow portion of the Stour River being forded by the title conveyance. For 10 points, name this English painter of *The Hay Wain*.

ANSWER: John Constable

17. One of this man's irritating behaviors was giving his peers nicknames such as "Burstbelly" and "Joseph the Jew." This man extended the zone of peace to the Wicklow Mountains while serving as Lord Lieutenant of Ireland. Nobles expressed discontent with the regency of this man, who ruled when the king departed to wed (*) Isabella of France, in the Boulogne Agreement. His final banishment came under the Ordinances of 1311, and the following year, he was assassinated by Guy de Beauchamp, the Earl of Warwick. For 10 points, name this English nobleman, who wielded great influence as the favorite of Edward II.

ANSWER: Piers Gaveston

18. A book by Michael Sofka explains that the influence of this phenomenon on Venus and stars causes UFO sightings, and a study in Warren Jones and Leonard Zusne's *Anomalistic Psychology* notes that it can be brought on by the power of suggestion. One experiment which made use of this phenomenon found that individuals reported a result of anywhere from twenty to eighty (*) centimeters, but groups of three had far less variation. That experiment, by Muzafer Sherif, used this illusion to study conformity. For 10 points, name this optical illusion in which a point of light in a dark room will appear to move due to fatigue of the muscles that hold the eye stationary.
ANSWER: the autokinetic effect

19. This author translated the August von Kotzebue play *The Spaniard in Peru* under the title *Pizarro*. In one of his own plays, Doctor Rosy helps a man masquerade as Humphry Hum in order to gain employ with Justice Credulous. This author of *St. Patrick's Day* also wrote a comedy in which Mr. Puff is producing a play at the Dangles' household and Richard Cumberland is satirized as Sir (*) Fretful Plagiary. Lady Sneerwell attempts to bring everyone down to her level and a man disguises himself as the moneylender Mr. Premium in another of his plays, which ends with Oliver Surface leaving his fortune to his nephew Charles. He also created Lydia Languish, who is betrothed to Ensign Beverly after many misspeakings from Mrs. Malaprop. For 10 points, name this author of *The Critic*, *The Rivals*, and *The School for Scandal*.
ANSWER: Richard Brinsley Sheridan

20. One theorem named for this letter states that if there are n physical variables expressed in terms of k quantities, one can create an equation in terms of n minus k different variables that recapitulates the original expression. The n th homotopy group is symbolized by this letter followed by a subscript n . Besides appearing in the name of a theorem named for (*) Buckingham, this letter is used to symbolize the prime counting function. One value symbolized by this letter is taken as the exponent of e in order to compute Gelfond's constant. Its capital version is used to symbolize repeated multiplication. For 10 points, name this letter that also symbolizes a constant equal to the ratio of the circumference to the diameter.
ANSWER: π

TIEBREAKER/EXTRA

During a 1958 ethnic riot in this region, people on one side donned red headbands to identify themselves to authorities. The natives of this region were targeted in Operation Lentil, which included the Khaibakh massacre and the forced deportation of much of its population. The Sunzha River runs through this region, and once flowed past a presidential palace used by (*) Dzhokhar Dudayev. FSB forces killed another leader of this region, Aslan Maskhadov, and its separatist movement is now led by Akhmed Zakayev. Found near Dagestan and Ingushetia, this Muslim-dominated region declared independence as Ichkeria in 1991. For 10 points, name this southern Russian republic, the site of a bloody war in the 1990s.
ANSWER: Chechnya

SCIENCE

1. A modified form of this algorithm is used to encode bitmaps in fax machines, and For 10 points each:
[10] Identify this compression algorithm which takes an input sentence, creates a frequency table, then generates a tree of binary prefix codes.

ANSWER: Huffman coding

[10] The number of operations needed to create a Huffman code is equal to big O of this value, which is also the average runtime of quicksort.

ANSWER: $n \log n$

[10] This other method of data compression, which is used by bzip2, takes the input string, rotates it, and arranges the rotations in dictionary order before extracting the final column.

ANSWER: Burrows-Wheeler transform

2. Name these author of the Russian Golden Age, for 10 points each.

[10] This national poet created the gambling-addicted Hermann in *The Queen of Spades* and the pursuer of Tanya and Olga in *Eugene Onegin*.

ANSWER: Alexander Sergeyevich Pushkin

[10] This author of *A Georgian Night* and *The Young Spouses* is doubtless best-known for his satirical look at the aristocracy, *Woe From Wit*. He also died in 1829 during a mob attack on the Russian embassy in Tehran, after which his head was cut off by a kebab vendor.

ANSWER: Alexander Sergeyevich Griboyedov

[10] This man translated Aesop's "The Frog Who Desired a King" as "The Frog Who Begged for a Tsar," part of his over two hundred widely read Russian fables.

ANSWER: Ivan Andreyevich Krylov

3. This book lamented the decline in visible signs of the university's Calvinist roots and focused much space on "indoctrination" with Keynesian theories. For 10 points each:

[10] For 10 points, name this 1951 book, subtitled *The Superstitions of Academic Freedom*, which denounced the author's Ivy League alma mater as a haven of liberalism.

ANSWER: *God and Man at Yale*

[10] *God and Man at Yale* was written during the senior year of this conservative host of *Firing Line*. His next book, *McCarthy and His Enemies*, was co-written with his brother-in-law and frequent collaborator, Brent Bozell.

ANSWER: William F. Buckley, Jr.

[10] In 1955, Buckley founded this magazine, the leading organ of intellectual conservatism in the U.S. It is sometimes said to be responsible for Barry Goldwater's nomination and the emergence of conservatism as a "movement," and Buckley defined its mission as "standing athwart history, yelling 'stop!'"

ANSWER: *National Review*

4. Twenty million pounds of the item at the center of this dispute rotted on the docks of Oakland after longshoremen were persuaded not to unload them. For 10 points each:

[10] Name this labor action, which involved a call not to consume a certain agricultural product from 1965 to 1970, and led to the merging of two smaller groups to create the United Farm Workers.

ANSWER: 1960s **grape boycott** [or Delano **grape strike**]

[10] This leader of the UFW initiated the grape campaign. He gave a speech at which a crowd chanted "Huelga!" signalling approval of the strike and boycott.

ANSWER: Cesar **Chavez**

[10] Three years before the start of the boycott, Cesar Chavez's brother Richard designed the logo of the UFW, which includes a black one of these animals on a red background.

ANSWER: **eagle** [prompt on **bird**]

5. This man's major work served as the altarpiece at the Siena cathedral. For 10 points each:

[10] Name this painter of the *Madonna Rucellai* and the *Maesta*.

ANSWER: **Duccio** di Buoninsegna

[10] This younger brother of Pietro was another Sienese painter, who painted a four-part Legend of St. Nicholas as well as the *Allegory of Good and Bad Government*.

ANSWER: Ambrogio **Lorenzetti**

[10] Duccio, and Siennese art in general, exhibits influence from this place, which loved showing the Deeses panel and produced art such as a building designed by Isidore of Miletus and Anthemius of Tralles.

ANSWER: the **Byzantine** Empire [or **Constantinople** or so on]

6. Answer some questions about the perception of pain, for 10 points each:

[10] Pain immediately causes the release of histamine and vasodilators via the "reflex" named for these structures, which are long projections of neurons covered by a myelin sheath.

ANSWER: **axon**

[10] This peptide is responsible for the perception of pain via its binding to the neurokinin-1 receptor. Capsacin also stimulates the release of this substance.

ANSWER: **substance P**

[10] An important site controlling the inhibition of pain is the gray matter around the cerebral aqueduct. The aqueduct connects the third and fourth of these fluid-filled spaces in the brain.

ANSWER: **ventricles**

7. This character once owned a tree with golden leaves, golden branches, and golden fruit, which provided Gaia's wedding present for Zeus and Hera. For 10 points each:

[10] Name this mythological character who was also the grandfather of Dardanus, the founder of the Trojan royal house.

ANSWER: **Atlas**

[10] Herakles took over holding up the sky from Atlas so that the Titan could fetch these items, which were guarded by the dragon Ladon and may have come from Atlas's tree in the first place.

ANSWER: the golden **apples of the Hesperides**

[10] Atlas's ancestry of Dardanus is through Electra, one of this group of daughters that also included Maia and Calaeno and was fixed as stars in the sky.

ANSWER: the **Pleiades**

8. References in this song to "stepping out on the balcony" and "cars rolling by out on 441" gave rise to an urban legend that this song was about a University of Florida student who jumped off the Beatty Towers. For 10 points each:

[10] Name this 1977 song which pleads, "oh yeah, alright, take it easy baby, make it last all night" about a title character who was "raised on promises."

ANSWER: "**American Girl**"

[10] "American Girl" was found on this man's self-titled debut album. This singer of "Mary Jane's Last Dance" and "Don't Come Around Here No More" has a backup band called The Heartbreakers and voiced Luanne's fiancée Lucky on *King of the Hill*

ANSWER: Tom **Petty**

[10] In an unusual 1996 project, Tom Petty covered the Beck song "Asshole" and wrote thirteen original songs, including "Walls" and "Change the Locks," to create the entire soundtrack to this 1996 film about marriage and infidelity starring Jennifer Aniston and directed by Edward Burns.

ANSWER: **She's the One**

9. This group fought for independence, union, and Catholicism, as laid out in the Plan of Iguala. For 10 points each:

[10] Name this force that compelled Juan O'Donojú to sign the Treaty of Cordoba.

ANSWER: the **Army of the Three Guarantees**

[10] This leader of the Army of the Three Guarantees was installed as Emperor of Mexico for about a year after winning independence.

ANSWER: Agustín de **Iturbide** [or **Augustín I**]

[10] This other major leader of the revolt against Spain issued the Plan of Casa Mata in an attempt to refocus the Mexican revolution onto the lower classes. In 1829, he allied with Santa Anna to overthrow Manuel Gómez Pedraza and seize the Mexican presidency, in which role he abolished slavery.

ANSWER: Vicente **Guerrero**

10. The title character of this novel is prescribed "walking around with a gun" by the American hypnotist Lasker Jones. For 10 points each:

[10] Name this novel, which includes one character's sham marriage to Anne Wood.

ANSWER: **Maurice**

[10] *Maurice* is a novel by this author of "The Curate's Friend" and *A Passage to India*.

ANSWER: Edward Morgan **Forster**

[10] Maurice finds happiness after this gamekeeper enters his window, and they eventually move into a cabin in the woods together.

ANSWER: Alec **Scudder** [or **Alec**]

11. A new party in this election for this body was led by a longtime host of news roundtable shows who entered politics in 2012. For 10 points each:

[10] Identify this legislative body which was up for election in January 2013. The new Yesh Atid party came in second with the slogan "Where Is The Money?" and platform against corruption and exemptions from the draft.

ANSWER: the **Knesset**

[10] This leader of the right-wing Ha-Bayit Ha-Yehudi or Jewish Home party was expected to win more seats in the election, but instead has seen a diminishing of his hardline proposals, which included separating Palestinian-dominated areas into three tiers and denying any Palestinian state.

ANSWER: Naftali **Benett**

[10] This party led by incumbent prime minister Benjamin Netanyahu retained its plurality of Knesset seats by a margin of one, underperforming in the election.

ANSWER: **Likud**

12. In the Pastorale second movement of this work, a male and a female singer sing wordlessly. For 10 points each:

[10] Name this symphony, the third of its composer, whose elusive title may refer to "the outward growth of the mind's scope."

ANSWER: *Sinfonia* **Espansiva**

[10] Carl Nielsen, who composed the *Sinfonia Espansiva*, was from this country, much like the composer of *A Horseman's Life*, Niels Gade.

ANSWER: **Denmark**

[10] Nielsen wrote the "Dance of the Prisoners," "Hindu Dance," and "Dance of the Morning Mist" for his suite of this title, which accompanied a play by Adam Oehlenschläger.

ANSWER: the **Aladdin** suite

13. With Liebig, this man published a theory of compound radicals after analyzing the oil of bitter almonds. For 10 points each:

[10] Name this German scientist who synthesized urea without the help of any animal kidney. Though the experiment helped disprove vitalism, that wasn't its original goal.

ANSWER: Friedrich **Wohler**

[10] An important step in the field of prebiotic chemistry was the realization that this molecule has the ability to catalyze reactions, leading to a hypothesis about its namesake "world".

ANSWER: **RNA** [or **ribonucleic acid**]

[10] Another important step in prebiotic chemistry was this scientist's discovery of proteinoid microspheres, which he believed was a step in the spontaneous generation of life.

ANSWER: Sydney Walter **Fox**

14. This treaty gets its name from the fact that it was negotiated in Susa at the court of Artaxerxes III. For 10 points each:

[10] Name this 387 BCE treaty that established Persian control of Ionia and Cyprus and ended a war fought by a Thrasybulus-led coalition against Sparta.

ANSWER: the **King's Peace** [or **Peace of Antalcidas**]

[10] The King's Peace ended this war and forced its namesake city to end its political union with Argos. The Battles of Cnidus and Coronea occurred in this war.

ANSWER: the **Corinthian War**

[10] Following the King's Peace, the "second" version of this empire was allowed to grow. The "first" version of this empire grew out of the Delian League and was defeated in the Peloponnesian War.

ANSWER: Second **Athenian** Empire

15. This character is prevented from accessing her father's tomb by Theseus in one play; in another, she has her hair cut and mourning clothes put on by her mother in an attempt to stop a civil war. For 10 points each:

[10] Identify this character who fails to prevent combat in *The Phoenician Women* and argues with a herald in the final scene of *Seven Against Thebes*

ANSWER: **Antigone**

[10] Antigone's most notable appearances are in *Oedipus at Colonnus* and *Antigone* by this playwright.

ANSWER: **Sophocles**

[10] This non-Theban play by Sophocles depicts Deianira unwittingly giving Herakles the poisoned shirt of Nessus; the dying hero then makes his son Hyllus swear to marry Iole.

ANSWER: *The **Women of Trachis*** [or **Trachinai**]

16. This person derives his abilities from contact with Orunmila and may compete for clients with an oriate. For 10 points each:

[10] Name this kind of Santeria priest, a "father of mystery" who uses palm nuts for divination.

ANSWER: **babalawo**

[10] Babalawo provide access to the will of these Santeria deities or spirits, including Shango and Erinle.

ANSWER: **orishas**

[10] Babalawos and oriates are just some of the many specialized roles within this general system of Yoruba and Santeria divination.

ANSWER: **Ifa**

17. This competitor of loop quantum gravity is an effort to unify relativity and quantum mechanics, and is usually thought of as the best candidate for the Theory of Everything. For 10 points each:

[10] Name this theory developed by Edward Witten, which united all previous string theories into one unified 11-dimensional framework.

ANSWER: **M** theory

[10] M theory predicts that the 7 extra dimensions of spacetime are compactified into these shapes. There are 10 to the 500 possible false vacua in M theory corresponding to versions of these shapes.

ANSWER: **Calabi-Yau** manifolds

[10] Some of the string theories unified in M theory have this unusual property, in which left-moving excitations and right-moving excitations are in spacetimes of different dimensions.

ANSWER: **heterotic**

18. Name these Philip Roth recurring characters, for 10 points each.

[10] This sex-obsessed literature instructor is the protagonist of *The Professor of Desire*, *The Breast*, and *The Dying Animal*. His adventures include turning into a giant breast and failing in his attempt to secure a meaningful relationship with Consuela Castillo.

ANSWER: **Kepesh** [or **David** Kepesh]

[10] This uncreatively named character visits John Demjanjuk's trial in Israel in *Operation Shylock*, infuriates his lover by publicizing notes about their conversations in *Deception*, and narrates *The Plot Against America*.

ANSWER: Philip **Roth** [or **Philip**]

[10] This character is seeking out E.I. Lonoff in *The Ghost Writer* and later writes the controversial novel *Carnovsky* in a book where he is "unbound." He makes his final appearance in 2007's *Exit Ghost*, after narrating *American Pastoral* and *The Human Stain*.

ANSWER: Nathan **Zuckerman** [or **Nathan**]

19. In 1924, this country's August Uprising against Soviet rule was repressed; by 1956, the March 9 Massacre here targeted loyalists who demanded that Stalin's memory be honored. For 10 points each:

[10] Name this SSR, which, as an independent country, was the location of the 2005 Rose Revolution.

ANSWER: **Georgia**

[10] The 1956 revolt was a protest of this initiative, which included relaxations on censorship and the renaming of places such as Mount Stalin and Stalingrad. It began with the delivery of the "secret speech."

ANSWER: the Khrushchev **thaw** [or **destalinization**]

[10] One demand of the Georgian revolt was to meet with this visiting Chinese dignitary. This founder of the People's Liberation Army had given a speech defending Stalin.

ANSWER: **Zhu** De

20. The main character of this film invents the one-second time machine and the disasterology calendar. For 10 points each:

[10] Name this film in which a couple named Stephane and Stephanie become unable to tell what is real and ultimately ride away on a toy horse.

ANSWER: *The **Science of Sleep*** [or *La **Science des rêves***]

[10] *The Science of Sleep* was directed by this French-American director, whose more popular efforts include *Dave Chapelle's Block Party*, *The Green Hornet*, and *Be Kind Rewind*.

ANSWER: Michel **Gondry**

[10] Jim Carrey and Kate Winslet visit Lacuna but realize they want to keep their memories of their repeatedly failed relationship in this other entry into the art film world by Gondry.

ANSWER: **Eternal Sunshine of the Spotless Mind**

EXTRA

Congo becomes a bootlegger in this novel, which loosely follows thrice-married actress Ellen Thatcher.
For 10 points each:

[10] Name this novel which also includes Gus McNiel's rise from milkman to political office and Jimmy Herf's departure from his journalism career to become a happy hobo.

ANSWER: **Manhattan Transfer**

[10] *Manhattan Transfer* was written by this author of the *District of Columbia* and *USA* trilogies.

ANSWER: John Roderigo **Dos Passos**

[10] In his conservative later years, Dos Passos wrote a study of the "head and heart" of this man, whose own writings include *Notes on the State of Virginia*.

ANSWER: Thomas **Jefferson**