

Chicago Open 2014: A Redoubtable Coupling of Editors

Packet by Yes, Virginia, There is a Mukherjesus (Evan Adams, Matt Bollinger, Tommy Casalaspi, Eric Mukherjee)

Edited by Austin Brownlow, Andrew Hart, Ike Jose, Gautam & Gaurav Kandlikar, and Jacob Reed

Tossups

1. This force escaped encirclement by fighting its way through Sutjeska Gorge in the culminating battle of an operation known as Case Black. This force massacred Italians by throwing them into natural sinkholes called “foibe.” This force, which liberated and subsequently moved its headquarters to the island of Vis, was led by a man who was targeted by Operation Knight’s Move, an attempt to kill or assassinate him using parachute and glider troops. Unlike its Ravna Gora-based rival, this group intentionally provoked cruel reprisals in order to create anti-occupation sentiment and swell its ranks. The cross-town rivals of Red Star were named in honor of this force, which set up the Uzice Republic, alienating its royalist rivals. This group, whose primary purpose was to counter the Ustase, often instead squabbled with the Chetniks. For 10 points, name this Communist resistance force that was led by Josip Tito and fought against the Nazi occupation of Yugoslavia.
ANSWER: Yugoslav **Partisans** [or **Partizani**; accept **National Liberation Army** and Partisan Detachments of Yugoslavia; or **PLA**]
2. This book illustrates a concept whose only norm is *sophrosune* with an artistic description of the top half of Raphael’s *Transfiguration*. This book, which compares ancient “cheerfulness” with Schiller’s modern “naivete,” cites Gotthold Lessing’s refusal to receive perfect knowledge from God to attack the “theoretical man.” Ulrich Wilamowitz made his career with an attack on this book. It quotes Schopenhauer’s description of a sailor in a storm illustrating the *principium individuationis* and uses “the phenomenon,” or *maya*, and the mask as equivalents for a concept it identifies with illusion. This book argues that the dialogue of a play and its chorus, respectively, belong to the realms of “dreams” and “drunkenness.” The author called this book “dubious” and links its writing to the tumult of the Franco-Prussian War in an 1886 “Attempt at Self-Criticism.” For 10 points, name this book that outlines the Apollonian and Dionysian drives and praises Richard Wagner, by Friedrich Nietzsche.
ANSWER: *The **Birth of Tragedy** from the Spirit of Music* [or *Die **Geburt der Tragödie** aus dem Geiste der Musik*]
3. These materials are commonly studied using 6 eV laser-based angle-resolved photoemission spectroscopy. Tuning the chemical potential near a 2.5-order quantum phase transition generates shape resonances in these materials, thereby breaking lattice symmetry and creating superstripes. Fermi arcs form pockets centered on the corners of the Brillouin zone in the pseudogap phase that occurs in an underdoped variety of these materials. The resonating valence bond and spin fluctuation theories are competing explanations of these materials’ namesake phenomenon. Melt-textured examples of these materials are close to ideally hard because they exhibit strong flux pinning of Abrikosov vortices. Bednorz and Müller won the 1987 Nobel Prize in Physics for discovering these materials, which include iron pnictides and cuprates like YBCO. For 10 points, name these materials that lose all resistance to current above the 30 Kelvin limit set by BCS theory.
ANSWER: **high-temperature superconductors** [or **HTS**; accept **cuprate superconductors** before “iron pnictides”; prompt on “(Type II) superconductors”; do not accept or prompt on “Type I superconductors”]

4. This culture believed that warriors who spent four years inhabiting its paradise were eventually transformed into butterflies that could go between heaven and earth. One story states that 1,600 gods in this myth system were born from a knife thrown from heaven to the earth. This culture's demiurge-like creator gave humanity the ability to doubt things and is a god of duality that resides in the thirteenth and most spectacular of its heavens. Its underworld was home to a mystic lizard that symbolized the earth and inhabits a place called "where the flags wave." Dead souls must journey for four years to reach this culture's lowest level of the underworld, which is the burial site for bones used by one of its gods to create humanity. Another of its afterlives is ruled over by a namesake rain deity and is called Tlalocan. For 10 points, name this culture whose primary underworld is known as Mictlan.

ANSWER: Aztecs [prompt on Nahuatl mythology]

5. A recent 700-year history of this art form is the subject of a literary biography of Professor Michael Schmidt, and its "true story" is provided in a book by Margaret Anne Doody. A book titled after this art form distinguishes in meaning between the sentences "the king died and the queen died" and "the king died and the queen died of grief." That book about this art form states "history develops, art stands still." A triple thesis about the formation of the middle class, the increase in literacy, and this art form's rising popularity is the subject of a book by Ian Watt. The first distinction between "flat" and "round" characters was provided in an E.M. Forster series of lectures about its "aspects." John William De Forest coined a term for one of these art forms that captured the spirit of the U.S. For 10 points, name this art form that may have begun in English with the publication of *Le Morte d'Arthur* and in Asia with *The Tale of Genji*, and which comes in a "Great American" variety.

ANSWER: the novel [accept *The Novel: A Biography* or Aspects of the Novel or *The Rise of the Novel* or *The True Story of the Novel* or "The Great American Novel"]

6. In a Henry Holiday painting, this man leans against a low wall and watches as women dressed in red, yellow, and blue pass by. In a painting of this man's "dream," he wears a black robe and cap and holds the hand of an angel in red who bends down to kiss his dying lover. A Rossetti history painting shows Giotto painting a portrait of this man; that portrait, which still stands in the Podesta Chapel of the Borgello Palace, depicts this man in profile as he wears a red cloak and cap. Botticelli executed a similar profile portrait that gives this man similar dress wearing a laurel wreath. This man, whom Michelino painted holding open a book outside a depiction of the Duomo, is steadied by his robed companion as the grasping of nude men and women causes his boat to rock in another work. Another Rossetti painting shows a red bird bringing this man's lover a flower as she sits next to a sundial. For 10 points, name this lover of the "Beata Beatrix," whose "barque" was painted by Eugene Delacroix.

ANSWER: Dante degli Alighieri [accept either underlined part]

7. This book's ambiguous final section describes how a "young man waits at the edge of the concrete, with one hand he grips a rubbed suitcase of phony leather, the other hand almost making a fist, thumbs up." An Austrian polo player in this novel named Max murders the Cuban Tony, who had earlier helped a woman escape from her rapist stepfather, Mandeville. A character in this novel tries to exploit his brother's status as a war hero to help advertise his Ford dealership. This novel, which concludes with the section "Vag," includes biographies of Rudolph Valentino and Thorstein Veblen. This novel includes the line "all right we are two nations," referring to the Sacco and Vanzetti trial, in one of its "Camera Eye" sections. In this novel, Margo Dowling becomes a movie star, and the pilot Charley Anderson dies after descending into alcoholism. For 10 points, name this 1936 novel by John Dos Passos, the final installment in the *U.S.A.* trilogy.

ANSWER: *The Big Money* [prompt on "U.S.A. (trilogy)"]

8. The music of this ethnic group usually includes a long metal trumpet-like instrument called a *kakaki*. Members of this ethnic group that practice traditional folk religion are referred to as “maguzawa,” and many who practice Abrahamic faiths retain practices such as a healing dance through the shamanistic “Bori cult.” According to tradition, this group’s original seven states are descended from the queen Daura, who married Bayajidda after he killed a serpent in their well. Members of this ethnic group speak a language, written in the Ajami script, that is the most widely spoken member of the Chadic family. This group, whose members are the principal inhabitants of the city of Kano, was the target of an 1804-to-1808 jihad led by Usman dan Fodio, which led to the founding of the Sokoto Caliphate after this ethnic group was defeated by its rival. For 10 points, name this African ethnic group of Niger and northern Nigeria, which has become intertwined with its former rival, the Fulani.

ANSWER: **Hausa**

9. In a paper whose title asks “how rare” is this thing, Eric Hayashi et al. use the millennium simulation to show that this object’s velocity is matched by only one out of every hundred subhalos. Observations of this object were corroborated by viewing MACS J0025, as well as Abell 520, which is nicknamed the “train wreck.” The smaller of this structure’s two constituents passed through the larger one around 150 million years ago and created a gigantic shockwave on its right side. Zaritsky et al.’s observations of this body showed that its center of mass was offset from its center of baryonic mass at a significance of eight sigma; that research team created a weak gravitational lensing map of this body and is among the best available evidence of dark matter, refuting Mordecai Milgrom’s MOND theory yet again. For 10 points, name this aggregation formally called 1E 0657-558, a cluster that actually consists of two colliding clusters of galaxies.

ANSWER: **Bullet** cluster [or **1E 0657-558** before mention]

10. The death of a ruler in this country prompted a succession crisis that ended with a tribute called the “Canning Award.” This country’s Buraymi Oasis was the subject of a border crisis that was resolved with the 1973 Treaty of Jeddah. During an uprising in its interior, Talib ibn Ali and his brother, the Imam Ghalib, proclaimed independence from this country from their stronghold around Jebel Akhdar. A later rebellion in this country was led by the Marxist Muhammad al Ghasani and the DLF, and was ended with aid from a British force commanded by Sir John Watts. In 1999, this country signed a treaty with its neighbor over the exclave of Musandam. For much of the 1960s and 1970s, this country’s Dhofar region waged a rebellion against the ruling Sultan Said bin Taimur, who was toppled in a coup by his son. For 10 points, name this country that is currently led by Qaboos of the Al-Said family from its capital in Muscat.

ANSWER: [Sultanate of] **Oman** [or Saltanat **Uman**]

11. One art museum in this city was given an aluminum mesh façade in a 2005 expansion by Herzog & de Meuron. Kenzo Tange’s only completed project in the U.S. was an expansion of another art museum in this city that was itself expanded by the 2001 addition of a Michael Graves-designed Children’s Theatre Company. Frank Lloyd Wright’s Willey House is found in this city, which is home to an orchestra that ended a three-year lockout of its musicians in 2014. A Jean Nouvel-designed theater in this city includes a cantilevered lobby that juts out into the sky called the Endless Bridge. One of this city’s tallest skyscrapers, which contains thirty-two corner offices on each floor because of a unique series of setbacks termed “zogs,” also has a seven-story Crystal Court. This site of the Walker Art Center and the Guthrie Theater is also home to Claes Oldenburg’s sculpture of a cherry resting on a spoon. For 10 points, name this Midwestern city that contains Philip Johnson’s IDS Tower.

ANSWER: **Minneapolis**, Minnesota

12. This compound, when dissolved in carbon tetrachloride, is used in Mason et al.'s technique to isolate disaturated phos-phatidyl-choline from broncho-alveolar lavage samples. This compound's bipyridine derivative reacts preferentially with thymine when exposed to DNA and can be used to probe tryptophan residues in proteins. When complexed with meth-enamine, this compound attains a slight polarity and is a safer alternative for staining lipid organelles in tissue fixation. Sodium per-iodate regenerates this compound in a reaction in which this compound cleaves alkenes in a manner similar to ozonolysis. In another reaction using this compound, the stereochemistry is controlled by chiral quinine ligands and uses this compound, regenerated by NMO, to convert alkenes into 1,2 diols. This compound is found in the Lemieux-Johnson reagent, and is used in the Upjohn and Sharpless dihydroxylation reactions. For 10 points, name this reagent that contains the densest element in a +8 oxidation state.

ANSWER: **osmium tetroxide** [accept **OsO4**]

13. Carl Blegen excavated a well-preserved Mycenaean palace at this city, which uniquely contained over a thousand Linear B tablets. On an island to the south of this city, Demosthenes armed 8,000 rowers with rocks and missiles to harass Epiradas's well-armored hoplites. A clay drinking cup with an inscription claiming that it belonged to a king of this city, found at Pithekoussai, is one of the earliest Greek inscriptions found in Italy. An island just off of this city's land was where 292 Spartan soldiers shocked their home city by surrendering to the Athenians, forcing Sparta to negotiate the Peace of Nicias, after the Battle of Sphacteria. The most detailed extant description of a Greek cow sacrifice occurs in a book of the *Odyssey* set in this proverbially sandy-shored city, which Telemachus visits immediately after departing Ithaca. It was mythically ruled by a man who returned safely home because he did not loot Troy. For 10 points, name this city that, in the *Odyssey*, was ruled by Nestor.

ANSWER: **Pylos** [accept **Navarino**]

14. One of this man's writings compares old friendships to cold and distasteful meats that are served up repeatedly. The second volume of one of this man's works compares Sir Joshua Reynolds's treatment of Orion to that of Nicolas Poussin, whom this man calls the most poetic of all painters. This author compares the knowledge of men to a very small compass in "On the Ignorance of the Learned." Another of this man's writings discusses how even our favorite books become indifferent to us over time, which leads him to conclude that even his old opinions have sadly deceived him. That piece by this author opens by describing how he resisted the urge to crush a spider, and argues that the title emotion is a poisonous mineral. This author of "On the Pleasure of Hating" wrote numerous pieces on Shakespeare, including the collection *Characters of Shakespeare's Plays*. For 10 points, name this foremost English essayist of the early 19th century, who authored *Liber Amoris* and *Table Talk*.

ANSWER: William **Hazlitt**

15. This book's second chapter discusses a student in a French class who delivers a 45-minute talk about how to make fish soup to satisfy an assignment that he speak for 5 minutes, illustrating the culturally significant phrase "to speak of all kind of things." In a chapter on "The Eight Questions," this book describes how two people would likely say that Yer's slamming of a door frightened another person's soul out of her body, necessitating a *txiv neeb* to sacrifice pigs and chickens. It mentions Congressman Tony Coelho and the characteristics of a good shaman in a discussion of its title phrase, a translation of *qaug dab peg*. This book, the bulk of which is set in Merced, California, describes growing mistrust between Neil Ernst and Peggy Philip, and Foua Yang and Na Kao Lee, over the treatment of Lia Lee's epilepsy. For 10 points, name this work of medical anthropology in which Anne Fadiman chronicles "a Hmong child, her American doctors, and the collision of two cultures."

ANSWER: *The **Spirit Catches You and You Fall Down***

16. In a central scene from this play, the protagonist is told that “a man like you does not remain where chance of birth has cast him.” One of the sources of this play’s plot is a story in a collection written by Masuccio Salernitano called *Il Novellino*. Before delivering a celebrated speech, this play’s protagonist ponders how odd it is that a man who he thought wanted money wants truth instead. The author’s chess-playing friend Abraham Wulff served as the model for one character in this play, which also contains a character based on Johann Melchior Goeze, a theologian against whom the author wrote censored polemics. This play, which is based partly on the third story from the *Decameron*, features a title character who describes how a father makes copies of a supposedly magic object so that all three of his sons can receive one and no one will know which has the original. In this play, the “Parable of the Rings” is told to Saladin by the title character, who is modeled on Moses Mendelssohn. For 10 points, name this drama by Gotthold Lessing.
ANSWER: Nathan the Wise [or Nathan der Weise]
17. According to one story, when a disciple of this rabbi returned with great wealth, this man calmed the jealousy of the others by filling up a whole valley with gold coins. In another story, he preserved his only set of clothes by burying himself naked in the sand while studying the Torah. Some traditions hold that the voice of God spoke out after this man disapproved of some farmers carrying on their lives instead of studying the Torah. He survived on the fruit of a magical carob tree and a spontaneously appearing spring during the thirteen years he spent studying the Torah in a cave with his son Eleazer. His *yahrzeit* is commemorated with shooting bows and arrows and lighting bonfires and occurs on the 33rd day of the Counting of the Omer. He is traditionally credited with writing a work that was actually written in the 13th century by the Spanish Kabbalist Moses de Leon. For 10 points, name this credited author of the *Zohar*, a student of Rabbi Akiva whose death is commemorated on Lag B’Omer.
ANSWER: Simeon bar Yochai [accept either; or Simeon ben Yohai; or Shimon Bar Yochai; accept Rashbi]
18. A disease of this organ can be caused by the HACEK complex of organisms. An autoimmune condition affecting this organ is caused by molecular mimicry of the streptococcal M protein. An infection of this organ diagnosed using the modified Duke criteria can cause the appearance of retinal Roth’s spots and cutaneous hemorrhages called Janeway lesions in the hands; that disease of this organ is caused by a nidus of infection called a vegetation. Libman and Sacks name a condition in which immune complexes are deposited in this organ, and inappropriate bleeding in this organ can lead to a form of constriction called tamponade. Mobitz type I and II pathologies in this organ occur when there are intermittent interruptions in its conduction system. Muscle fibers named for Wilhelm His conduct impulses towards Purkinje cells in this organ, in which electrical activity is generated by the SA node. For 10 points, name this organ whose pathologies are often diagnosed by EKG.
ANSWER: the heart [accept endocardium or pericardium or myocardium]
19. One racially charged incident in this state, that arose from a squabble that claimed the life of Frank Natus, led Joseph Foraker to lose his re-election when he heatedly criticized the President at a Gridiron Dinner. Early in the Civil War, many “Forty Eighters” from this state’s Hill Country fled the U.S. after Hamilton Bee led a massacre of Germans. In another incident in this state, townspeople produced gun cartridges that they falsely claimed belonged to the 25th Infantry. In 1860, the public fretted over a slave insurrection in this state after a series of fires charred cities in its north. Booker T. Washington cried foul after Teddy Roosevelt issued dishonorable discharges to 167 “buffalo soldiers” to resolve a racially charged incident after the murder of a white bartender in this state’s city of Brownsville. Edward Clark became governor of this state after its governor refused to take an oath of loyalty to the Confederacy. For 10 points, name this state once governed by Sam Houston.
ANSWER: Texas

20. The fifth movement of this work is a short, energetic E minor fugue, the subject of which begins with four quick Bs and then a longer E. This work uses its lone trumpet only in its first, penultimate, and final movements. The opening of this work has the whole orchestra play the following figure twice, in quick unison eighth notes: a D, a D an octave higher, and then two of the lower Ds; that music is brought back in this work's penultimate movement, "Quoniam tu solus sanctus." This work bears many similarities to its composer's earlier work in the same key and genre, RV 588, which uses the same fugue subjects in its "Cum sancto spiritu" final movement. Two sopranos sing a tune starting "G-B-C-D" [pronounce slowly, emphasis on the "B"] in imitation in this work's "Laudamus te." For 10 points, name this setting of the second section of the Latin mass, written by the Italian Baroque composer of *The Four Seasons*.

ANSWER: Vivaldi's **Gloria** [in excelsis Deo] in D, RV **589** [accept either underlined part]

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Bonuses

1. Because all the hydrogen atoms on one molecule with this functional group are equivalent, they only give one peak in proton-NMR, making that molecule an ideal reference compound. For 10 points each:
[10] Name this simplest of the alkyl groups. The reference molecule TMS has four of these groups bonded to a central silicon atom.
ANSWER: **methyl** [do not accept “methane”]
[10] Improving signals in C-NMR and N-NMR can be achieved using techniques like INEPT or the Overhauser effect in NOESY. Both techniques involve the transfer of this quantity, which is roughly the ratio of the density of states of spin-up and spin-down electrons.
ANSWER: spin **polarization**
[10] Presaturation and jump return are methods of achieving this result in NMR spectroscopy particularly when the analyte is a biological sample. A powerful method of achieving this result is called excitation sculpting.
ANSWER: **solvent suppression** [accept **removing the signal from the solvent** or descriptive equivalents]
2. Gosta Esping-Andersen divided these systems into three “worlds,” including Liberal and Christian-Democratic, partly based on their “decommodifying index.” For 10 points each:
[10] Name these systems that T.H. Marshall argued were based on “social citizenship.” They typically have “mixed economies.”
ANSWER: **welfare states** [prompt on “welfare” or “welfare systems” or equivalents]
[10] The rise of the UK welfare state is often attributed to the timing of this 1942 report on “social insurance and allied services,” which identified five “giant evils” plaguing society.
ANSWER: **Beveridge** Report
[10] Historian Robert Paxton argued that all right-wing 20th-century dictatorships were welfare states, pointing to Otto von Bismarck’s creation of old-age pensions and social insurance, as well as the similar policies instituted by this Irish-Austrian politician who served as the Minister-President of Cisleithania from 1868 to 1870 and again from 1879 to 1893.
ANSWER: Count Eduard [Franz Joseph Graf von] **Taaffe**
3. The reputation of the composer of this piece as a fomenter of the Risorgimento suffered after historians discovered that *Immenso Jehova*, and not this piece, was the subject of Milanese encore requests. For 10 points each:
[10] Name this piece from an 1842 opera, which opens by asking thought to fly on wings of gold.
ANSWER: “**Va, pensiero** sull’ali dorate” [or “The Chorus of the **Hebrew Slaves**”; accept **Hebrew Slave Chorus** or similar alternate formulations]
[10] “Va, Pensiero” appears in this Giuseppe Verdi opera about the exiled Jews.
ANSWER: **Nabucco**
[10] At Verdi’s funeral, a chorus of 820 singing “Va pensiero” was led by this Italian conductor, who later helmed the NBC Symphony Orchestra.
ANSWER: Arturo **Toscanini**

4. In 1968, a statewide event of this type in Florida forced governor Claude Kirk to pass new taxes. For 10 points each:
[10] Name this type of event that Albert Shanker organized in the Ocean Hill-Brownsville district of New York City in 1968.
ANSWER: **teachers' strikes** [or **strikes** by a **teachers' union**; accept any reasonable equivalent]
[10] In 2012, Karen Lewis led a week-long teachers' strike in this city in protest against overcrowded working conditions and over-reliance on standardized testing under mayor Rahm Emanuel.
ANSWER: **Chicago**, Illinois
[10] This controversial 1983 report commissioned by the Reagan administration cited declining SAT scores, writing skills, and mathematical abilities to argue for more rigorous standards in American education.
ANSWER: A **Nation at Risk**: *The Imperative For Educational Reform*
5. In one painting with this title, an open doorway looks out onto the sea, and in the other, a window looks out onto a forested region. For 10 points each:
[10] Give the common name of these paintings in which a canvas on an easel blends in with the landscape seen through the door or window behind them.
ANSWER: *The **Human Condition*** [or *La **condition humaine***]
[10] Both versions of *The Human Condition* were painted by this Belgian bowler hat aficionado.
ANSWER: René [François Ghislain] **Magritte**
[10] Magritte again painted a painting on an easel in front of an open window, this time contrasting the tower of a castle with the projective shape of a street, in this painting. Its name derives from its inspiration in geometry.
ANSWER: **Euclidean Walks** [or *Les **promenades de Euclid***; or **Promenades of Euclid**]
6. This 1820 play was the subject of a glowing review by Goethe praising the author for violating outworn conventions of tragedy. For 10 points each:
[10] Name this play in which the title character is condemned to death by the Senate after he generously releases his Milanese prisoners, causing him to stoically accept his fate and announce that history is devoid of justice.
ANSWER: *The **Count of Carmagnola*** [or *Il **Conti di Carmagnola***]
[10] *The Count of Carmagnola* is a play by this author, who wrote of Lucia being locked in the castle of the Unnamed while trying to reunite with her lover Renzo, after they were separated by the tyrant Don Rodrigo, in *The Betrothed*.
ANSWER: Alessandro [Francesco Tommaso] **Manzoni**
[10] This Italian playwright wrote an adaptation of the Francesca da Rimini legend and many works for his favorite actress *La Duse*, like *The Dead City*. He fictionalized himself as Giorgio Aursipa in his novel *The Triumph of Death*.
ANSWER: Gabriele **D'Annunzio**

7. These equations have streaming terms on the left side and collision terms on the right. For 10 points each:
 [10] Name this set of equations linking the probability density function of an s-particle system with the probability density function of an s+1-particle system.
 ANSWER: **BBGKY** hierarchy [or **Bogoliubov-Born-Green-Kirkwood-Yvon** hierarchy]
 [10] The BBGKY hierarchy for an s-particle subset of an n-particle system can be obtained by integrating the equation describing this theorem over the terms representing the remaining n minus s particles. This theorem states that the distribution function is constant along any phase space trajectory.
 ANSWER: **Liouville's** theorem
 [10] Liouville's theorem implies that this hypothesis is valid when the initial distribution of microstates is uniform. It is related to molecular chaos and is a necessary precondition of the equipartition and Poincaré recurrence theorems.
 ANSWER: **ergodic** hypothesis [or **ergodicity**]
8. Western Christians generally begin this practice by touching the left shoulder, while Orthodox Christians generally begin by touching the right shoulder. For 10 points each:
 [10] Name this ritual, often done while saying "in the name of the Father, and of the Son, and of the Holy Spirit."
 ANSWER: making the **sign of the cross** [accept **crossing** oneself or **making the cross** or equivalents]
 [10] The five fingers used to make the sign of the cross in Catholic tradition represent these five marks that are often prominently depicted in scenes of the Incredulity of Thomas.
 ANSWER: **wounds of Christ** [accept equivalents; accept **Holy Wounds** or **Sacred Wounds**; prompt on "wounds" or equivalent; prompt on "stigmata"]
 [10] This Italian Capuchin monk, who died in 1968, displayed stigmata that mirrored the wounds of Christ. He was canonized in 2002 despite allegations that he faked the stigmata using carbolic acid.
 ANSWER: Saint **Pio** of Pietrelcina [or **Padre Pio**; or Francesco **Forgione**]
9. Internal Revenue Code Section 1256 requires this accounting treatment for most futures contracts, which requires treating them as sold for their fair market value on the last day of the year. For 10 points each:
 [10] Name this accounting practice in which an asset or liability is recorded as having its fair market value instead of its book value.
 ANSWER: **mark-to-market** accounting [or **MTM** accounting]
 [10] Mark-to-market accounting is frequently required by this set of accounting standards and guidelines. These standards, which are set by the FASB, sometimes vary from the international IFRS standards.
 ANSWER: **generally accepted accounting principles** [or **GAAP**]
 [10] Accountants can use the FIFO, LIFO, or weighted-average methods to account for the cost of this asset, the amount of goods and materials that a business is holding for sale.
 ANSWER: **inventory** [or **stock**]
10. Aristocrats holding these grants were allowed to levy taxes on their land in exchange for providing soldiers to the Byzantine Emperor when he called for them. For 10 points each:
 [10] Name these feudal grants of land in the Byzantine Empire. In the 11th century, the Komnenos Dynasty used these plots, rather than themes, as the organizational basis for the Byzantine military.
 ANSWER: **pronoiai**
 [10] This 7th-century Byzantine emperor instituted a forerunner of the *pronoia* system, military districts called themes, as part of his reforms. He beat back Sassanid incursions into his territory at a 627 CE battle.
 ANSWER: Emperor **Heraclius** [or **Herakleios**] [The battle was at Nineveh.]
 [10] The fourth Byzantine emperor of this name gave Crete to Boniface of Montferrat as a *pronoia* during the Fourth Crusade. The first emperor of this name ruled at the height of the Komnenian dynasty.
 ANSWER: **Alexius** [or **Alexios**; accept **Alexios** I Komnenos or **Alexios** IV Angelos]

11. This organism was characterized after its rediscovery by Taylor in 1976, and it has the highest chromosome number among its formicid counterparts. For 10 points each:

[10] Give the scientific name of this yellowish organism that is called a “living fossil” among the ants. It is studied as a missing link in the development of social behavior.

ANSWER: **Nothomyrmecia macrops** [or **N. macrops**]

[10] *Nothomyrmecia* is one of the many interesting organisms found on this continent, whose other terrestrial and arboreal fauna include the kookaburra, the wallaby, and the wombat. This continent is to the south-east of the Wallace line.

ANSWER: **Australia**

[10] This group of ants maintain populations of the bacterium *Pseudonocardia*, whose secondary metabolites help protect these ants’ fungal cultivars against the parasitic *Escovopsis* fungus.

ANSWER: **attine** ants [accept **higher attine** or **lower attine** ants or **leaf-cutting** ants or **leaf-cutter** ants]

12. In this novel, Nick Guest has homosexual relationships with the Leo and the Lebanese businessman Wani while boarding in the house of Gerald Fedden. For 10 points each:

[10] Name this book by Alan Hollinghurst whose title refers to both the shape of Wani’s body and the arrangement of his cocaine.

ANSWER: *The* **Line of Beauty**

[10] In a scene in *The Line of Beauty*, Nick Guest dances with this world leader, who has finally decided to attend Gerald and Rachel’s 25th anniversary soiree.

ANSWER: Margaret [Hilda] **Thatcher** [or Margaret Hilda **Roberts**]

[10] In *The Line of Beauty*, Nick is writing a thesis on this American author of *The Wings of the Dove*. Nick vainly tries to promote a film adaptation of this author’s *The Spoils of Poynton*.

ANSWER: Henry **James**

13. The Romans imported their gods from other peoples. For 10 points each:

[10] In the *Metamorphoses*, this god sails to Rome in snake form and takes up residence on an island in the Tiber. He saves Rome from a plague, befitting his role as a god of healing.

ANSWER: **Asclepius** [or **Aesculapius**]

[10] The Romans were never entirely at ease with these Phrygian self-castrating priests of Cybele who ran through the streets flogging themselves with the accompaniment of tambourines and pipes.

ANSWER: **Galli** [or a **Gallus**]

[10] The Romans celebrated this Praeneste goddess of woods and orchards with her festival on the Ides of November. Unsurprisingly, she was adorned with much fruit.

ANSWER: **Feronia**

14. Leopold Kozeluch and Jan Vladislav Dussek are best remembered for their flashy works in this genre. For 10 points each:

[10] Name this genre, Haydn’s 11th of which is in D major. Mozart produced 27 works in this orchestral genre, and usually performed the solo part in those works himself; modern recordings have been made by Murray Perahia and Alfred Brendel.

ANSWER: **piano concerto** [accept word forms]

[10] Mozart’s Piano Concerto No. 26 in D Major is usually nicknamed for this festive occasion.

ANSWER: a **coronation** [or **Krönung**; accept **Coronation Concerto** or **Krönungskonzert**]

[10] This composer wrote influential proto-romantic works, including his Piano Concerto in A Minor and Piano Sonata in F-Sharp Minor. He’s best-remembered for an E-major trumpet concerto.

ANSWER: Johann Nepomuk **Hummel**

15. This poet's major works were collected in the posthumously published *Preparatory Meditations* and *God's Determinations Touching His Elect*. For 10 points each:

[10] Name this colonial American poet, a minister who wrote "Huswifery" and "Upon a Spider Catching a Fly."

ANSWER: Edward **Taylor**

[10] In "Upon a Spider Catching a Fly," Taylor contrasts the fate of the fly with one of these creatures, which the spider treats gently for fear he will fret his net.

ANSWER: **wasp**

[10] Edward Taylor is considered to be the only major American poet who produced this kind of poetry, which involves a surprising metaphor based on a conceit. T.S. Eliot praised this type of poetry in a namesake 1921 essay.

ANSWER: **metaphysical** poets [or **metaphysical** poetry]

16. In an essay from Plutarch's *Moralia*, Archidamus and Caphisias discuss this entity before going on to liberate Thebes from tyranny. For 10 points each:

[10] Name this entity that, in the *Apology*, Socrates states warns him against mistakes but never tells him what to do.

ANSWER: Socrates' inner **voice** [or Socrates' **genius**; or Socrates' **divine sign**; or Socrates' **daimonion**; or Socrates' **god**; accept equivalents]

[10] In this Platonic dialogue, Socrates' *daimonion* tells him that he needs to stay in prison and face execution rather than escape, as the title character wants.

ANSWER: **Crito** [or **Kriton**]

[10] The second half of *Crito* largely consists of an imagined debate between Socrates and these personified beings, who insist that Socrates must not escape from prison, since they raised him.

ANSWER: the **laws** of Athens [or the **nomoi**; accept equivalents]

17. As a child, this man's father sent him as a hostage to King Stephen, whose threat to kill this man proved useless when his father declared he had the hammer and anvil to make another son. For 10 points each:

[10] Name this knight, known for his tournament prowess, who was as a regent for Henry III after serving under his three predecessors. His surname is an honorific referring to his role as the head of royal security.

ANSWER: Sir William **Marshal**, [or 1st Earl of **Pembroke**]

[10] During the Third Crusade, William Marshal joined the nobles who rebelled against this statesman, who had been named Chancellor in the absence of Richard the Lionheart.

ANSWER: William [de] **Longchamp** [accept William **Longchamps**]

[10] William Marshal also served this king, who married Eleanor of Aquitaine and prompted the killing of the "meddlesome priest" Thomas Becket.

ANSWER: **Henry II** [accept **Henry Curtmantle** or **Henry FitzEmpress**; prompt on "Henry (Plantagenet)"]

18. Given two continuous functions from a topological space X to Y, this term refers to the continuous function that is the cross of the space X with the unit interval to space Y. For 10 points each:

[10] Name this relationship between two topological spaces, such that one can be continuously deformed into another.

ANSWER: **homotopy** [accept word forms; do not accept “homoemorphism” or word forms thereof]

[10] This term refers to the simplest homotopy group that is the set of all “loops” in an algebraic space that can be deformed into each other without breaking.

ANSWER: **fundamental** group

[10] The homotopy lifting property can be used to characterize this class of topological spaces, which consists of a continuous surjective mapping from the total space to the base space. A cylindrical hairbrush is often given as an illustration of one.

ANSWER: **fiber bundle** [prompt on partial answers]

19. Most of the text on this artifact refers to its namesake’s conquest of Libya, and controversy exists regarding the interpretation of its most famous line. For 10 points each:

[10] Name this stele that has the first non-Biblical reference to Israel in the phrase “Israel is laid to waste, its seed is not.” It was built to celebrate the victories of Rameses II’s successor.

ANSWER: **Merneptah** stele [prompt on “Israel (stele)”]

[10] The Merneptah stele was discovered by this Egyptologist, who made early contributions on contextual seriation techniques for dating archaeological finds. He also excavated the Royal Palace and the Great Temple of Aten in the city of Amarna.

ANSWER: [Sir William Matthew] Flinders **Petrie**

[10] Flinders Petrie also excavated several encaustic portraits found at a burial site in this city that were created contemporaneously to Roman rule over Egypt. This city stands over the ancient site of Crocodilopolis.

ANSWER: **Fayyum** [or **Phiom**; or **Faiyum**; accept **Fayyum portraiture** or equivalents]

20. The surviving text of this play is missing about 160 lines, making it the second-best-preserved of its author’s works. For 10 points each:

[10] Name this play in which a long series of misunderstandings between Chrysis, Demeas, Nikeratos, and others ends in the happy marriage of Moschion and Plangon, whose illegitimate baby had replaced Chrysis’s dead child.

ANSWER: **Samia** [or *The Girl from Samos*]

[10] *Samia* was written by this Greek playwright of *Dyskolos*, the best-surviving representative of the New Comedy.

ANSWER: **Menander** [or **Menandros**]

[10] Menander’s play *Aspis* is named for one of these items. A poem about one of these items that belongs to Heracles was attributed to Hesiod and describes Heracles’s fight against Cynus.

ANSWER: **shield** [accept *The Shield of Heracles*]