

2016 MYSTERIUM: “I quiz all sounds, all thoughts, all everything”

Packet 2 – bacewicz

Questions by Yale (Jacob Reed, Stephen Eltinge, Laurence Li, Adam Fine, Isaac Kirk-Davidoff) and Maryland (Jordan Brownstein, Weijia Cheng, Ophir Lifshitz, Naveed Chowdhury, Ani Perumalla), with Sriram Pendyala

Tossups

1. **This book accuses both Locke and Leibniz of an “Amphiboly of Concepts of Reflection.” This book includes an attack on four propositions about the soul that it deems to be paralogisms. The standard English translation of this book was made by Allen Wood and Paul Guyer. It argues that we have to use “schemata” to perceive things in terms of quantity, quality, relation, and modality. This book proceeds from formal to empirical in an “architectonic” scheme that ends with nature and begins with the unity of (*) apperception. Space and time are just ways we perceive the world, according to this book’s Transcendental Aesthetic. This book argues that we cannot know the *noumenon*, which consists of things in themselves. It uses the example of mathematics to show that synthetic *a priori* truths are possible. For 10 points, name this *magnum opus* of Immanuel Kant.**

ANSWER: *Critique of Pure Reason* [or *Kritik der reinen Vernunft*; or Kant’s First Critique]

<JR Philosophy>

2. **In a novel by this author, a bandit named Little Harp keeps the talking, decapitated head of his brother Big Harp in a chest. One of this author’s protagonists scrubs nail-polish off a desk because it belongs to a woman whom she later almost hits with a breadboard. In a novel by this author, Rosamund marries a man who disguises his face with berry juice and tricks Mike Fink into thinking he’s a ghost in the first scene. A character of this author (*) dies after his wife tries to get him to go to a carnival while he’s recovering from detached retina surgery. In that novel by her, the funeral of Judge McKelva is attended by his wife, Fay, and daughter, Laurel. For 10 points, name this author of *The Robber Bridegroom* and *The Optimist’s Daughter*, who also wrote short stories like “A Worn Path” and “Why I Live at the P.O.”**

ANSWER: Eudora Welty

<JB American Literature>

3. *Description acceptable.* **The account of one of these events by John of Ephesus describes headless black people rowing phantom bronze ships through the air. The death of Emperor Claudius Gothicus in one of these events encouraged mass conversions to Christianity according to St. Cyprian of Carthage. An account of one of these events claims that a leader was too upset by the death of Paralus and Xanthippus during it to be consoled by Aspasia. The return of (*) Lucius Verus’s troops began one of these events during the reign of Marcus Aurelius known as the “Antonine” one. The *Secret History* of Procopius blames a devastating event of this type on the evil of Emperor Justinian, and one of them killed Pericles during a siege by Sparta. For 10 points, the population of Athens in 430 BCE was decimated by what type of disaster?**

ANSWER: plagues [accept rough equivalents like disease outbreaks]

<JB European/Ancient History>

4. The value for this parameter is approximately proportional to the square root of the ionization energy over Rydberg's constant. In Hartree–Fock theory, this value is approximated by the ratio of the mean radius for hydrogen to the mean computed radius for an atom with given atomic number. Electronegativity is proportional to this value divided by covalent radius squared, plus another additive constant, according to the Allred–Rochow formula. More traditionally, this number is approximated for *ns* and *np* electrons by correcting by (*) 0.35 for every electron in shell *n*, 0.85 for every electron in shell *n* minus one, and 1 for every electron in shells *n* minus two and below; that empirical formula for it was developed by Slater. It is given by atomic number minus a shielding constant. For 10 points, name this value, the net positive charge experienced by a given electron.

ANSWER: effective nuclear charge [accept Z-effective or Z-star; do not accept “nuclear charge”]

<SP Chemistry>

5. The bottom of one of this artist's paintings includes a crab-like creature and a fish head taken from a Bruegel print of the Last Judgment. In another of his paintings, the title person's smile is actually a cut-out from a magazine ad. He painted a bright green dress barely covering the cleavage of his neon-*Pink Lady*. This artist used transferred newsprint heavily in his paintings *Gotham News* and *Easter Monday*. After painting his most famous works, he gradually “absorbed” figures into his *Abstract* (*) *Urban Landscapes*. This man ended his “black-and-white abstractions” with a painting inspired by his time at Black Mountain College, *Excavation*. This painter of *Pink Angels* is best-known for an early-1950s series of full-frontal views of “bulky,” grotesquely distorted female nudes. For 10 points, name this Dutch-American Abstract Expressionist who painted the *Woman* series.

ANSWER: Willem de Kooning [accept Bill de Kooning]

<JR Visual Arts>

6. This was the main commodity traded by the city of Massawa. This commodity was procured en masse for the Ottomans by the Crimean Khanate and the Nogai Horde. This commodity was often traded for Venetian glass beads. This was the most profitable commodity traded by Kanem-Bornu, Dahomey, and Nubia. This commodity was traded through the island of (*) Gorée. A variety of this commodity was once called *Zanj*. The South Sea company was granted the right to sell this commodity, which was given to Britain in the Treaty of Utrecht and was called the *asiento*. It was often traded for guns, which made it easier to acquire this commodity in war. This commodity rose up to rule the Mamluk Sultanate. For 10 points, name this commodity that was brought to the New World via the Middle Passage from Africa.

ANSWER: slaves [accept people, humans, etc.]

<JR World History>

7. Nirad Chaudhuri is best-known for a work in this genre. Another work in this genre begins with the protagonist failing to recite a poem in church and then running out while simultaneously crying, laughing, and peeing. A work in this genre includes a story first published as “Mademoiselle O.” The narrator of another of these works becomes a streetcar conductor in San Francisco after hanging out with some (*) “powhitetrash” girls in Stamps, Arkansas. That book in this genre takes its title from the poem “Sympathy” by Paul Laurence Dunbar. The narrator of another of these books describes a chess problem and meeting his wife Vera, and explains that his scientific research on butterflies was stopped by the writing of *Lolita*. For 10 points, name this genre of Vladimir Nabokov's *Invitation of a Beulah*, *Invitation of a Beulah* and Maya Angelou's *I Know Why the Caged Bird Sings*.

ANSWER: memoirs [accept autobiography]

<JR Other Literature>

8. *Description acceptable.* In one story, reciting this text healed a scorpion sting, leading to it being called “the cure.” This text’s last and longest line contrasts favoured ones with “those who earn Thine anger” and “those who go astray.” This text asks the “Master of the Day of Judgment” and “the Lord of [all] the worlds” to “guide us to the straight path.” This text’s third line consists entirely of the description “*ar-raḥmāni ar-raḥīm*,” or “the Most Gracious, the Most Merciful.” It is often called “The (*) Mother of the Book.”

Following a Hadith calling it the “seven oft-repeated verses,” this text is recited following *Takbīr* at the beginning of each *rak‘ah* in *ṣalāt*. This chapter is *followed* by “Al-Baqara,” which contains the Throne Verse, and is called “The Cow.” For 10 points, identify this Surah, called “Al-Fatiha” or “The Opening” for its position in the Qur’an.

ANSWER: the first Surah in the Qur’an [until “For 10 points,” accept Al-Fatiha, The Opening, or The Opener]

<JR Religion>

9. Quantum degrees of freedom in these systems are treated as fictitious classical variables in a method named for Car and Parrinello; that method successfully reproduces the Kohn–Sham equations. The Boltzmann equation relies on an assumption of uncorrelated velocities named for this type of “chaos.” The Verlet algorithm integrates Newton’s laws for use in the “dynamics” named for these systems. They are the (*) larger of the two types of systems whose interactions are described by the Lennard–Jones potential. The larger parts of these systems are held fixed in the Born–Oppenheimer approximation. The Schrödinger equation for these things cannot be solved exactly due to the presence of multiple electrons and nuclei. For 10 points, name these groups of atoms held together by bonds.

ANSWER: molecules [or word forms like molecular]

<SE Physics>

10. This man claimed he was determined to become a farmer after he was given a hoe and told to work in the fields by James McLaughlin. This man was received by James Walsh, referred by newspapers to as this man’s “boss,” after he crossed into the Northwest Territory. Impressed by a performer’s shooting skills, this man gave the name “Little Sure Shot” to that (*) woman, Annie Oakley. This leader’s most notable military victory took place after he had a vision of soldiers falling into his camp like grasshoppers from the sky. He was killed at Standing Rock for his connections with the Ghost Dance after he toured with Buffalo Bill’s Wild West Show. For 10 points, name this Sioux leader who, with Crazy Horse, defeated Custer at Little Bighorn.

ANSWER: Sitting Bull [or Tatanka Iyotake]

<WC American History>

11. This sensation is modulated by receptors classified as delta, kappa, mu, or orphanin. The intensity of this sensation is determined in the insular and cingulate cortices. Ronald Melzack and Patrick Wall developed a “gate control” theory of this phenomenon. This sensation is triggered unusually often in (*) allodynia, and it’s experienced more intensely in hyperalgesia. This sensation is caused by “noxious” stimuli. Wilhelm Erb wrongly theorized that this sensation results from any stimulus if it is intense enough. It is often transmitted with touch and temperature. The “slow” variety of this sensation is transmitted via C-fibers, and it is triggered by free nerve endings. This sensation is transmitted via Substance P. For 10 points, name this sensation that is dulled by NSAIDs like ibuprofen and opiates like morphine.

ANSWER: pain [or nociception]

<JR Economics/Psychology>

12. In this opera's finale, one character says "I know that one all too well" when a series of opera excerpts ends with a quote from its composer's previous opera. One character in this opera is unusually accompanied by three trombones, and his final appearance coincides with the reappearance of the crashing syncopated chords from the beginning of the overture. This opera's final act includes a simulation of three dance orchestras tuning up as they play three dances at the same time. This opera's title character sings the brief (*) "Fin ch'han dal vino" ("feen con dahl vee-no"). In this opera, Don Ottavio vows vengeance after figuring out who murdered Donna Anna's father. The title character of this opera sings "Là ci darem la mano" ("LAH chee dah-REM la MAH-noh") with Zerlina, as well as the "Champagne Aria." Its title character's conquests are listed in the "Catalogue Aria" by Leporello. In this opera's finale, the title character is dragged into hell after a statue of the Commendatore comes to life. For 10 points, name this Mozart opera about a seducer.

ANSWER: Don Giovanni [accept *Il dissoluto punito* or *The Rake Punished*]

<JR Other Arts>

13. This color names a class of tiny, round starburst galaxies with strong UV Lyman-alpha lines, and a class of larger galaxies excited by a once-active quasar. Those classes arose in the crowdsourced Galaxy Zoo in 2007. Emission lines of this color in the Cat's Eye Nebula led William Huggins to propose the element "nebulium." Forbidden lines of [O III] ("oh three") in the Orion Nebula and Hanny's Voorwerp ("honey's VORE-werp") are this color, and are used to make PNLFs. The largest movable radio telescope is in [this color] Bank, West Virginia. The galaxy color-magnitude diagram's (*) "valley" is this color. As the Sun's upper rim grazes the horizon, it may briefly flash this color. Atomic oxygen in the upper ionosphere produces the 557 nm line of this most prominent color in aurorae. Stars cannot be this color because blackbodies peaking in this color look white. For 10 points, what color is included in the name of a "runaway" effect that trapped heat on Venus?

ANSWER: green [accept green pea galaxies, green bean galaxies, green valley, or Green Bank]

<OL Other Science>

14. In this novel, a poet is almost hung when he fails to silently take a purse from a bell-covered dummy, but is saved when he agrees to marry a girl. Trial scenes in this novel include a farce in which a deaf judge interrogates a deaf prisoner and one involving an animal's ability to imitate priests and spell a certain name. The main character of this novel uses molten lead to thwart a rescue attempt led by the King of Tunis and the Court of Miracles. In this novel's first scene, Gringoire's ("gran-GWAR's") allegorical play about a golden dolphin is interrupted with a grimacing contest, by which the (*) Pope of the Fools is chosen. A girl in this novel owns the goat Djali ("jah-LEE") and loves captain Phoebus. At the end of this novel, Claude Frolo falls to his death and the gypsy Esmeralda is hanged. For 10 points, name this novel about the deformed bell-ringer Quasimodo by Victor Hugo.

ANSWER: The Hunchback of Notre-Dame [or Notre-Dame de Paris]

<JB European Literature>

15. This author attacked the idea that "while we, the civilized, sort matters out analytically... they, the savage, wander about in a hodgepodge of... mystical participations" in "The Way We Think Now: Toward an Ethnography of Modern Thought." One of his books is divided into sections on political "Definition," "Anatomy," and "Statement" and describes the "Myth of the Exemplary Center." This author of the collection *Local Knowledge* studied the (*) Theater State of 19th-century Bali in his book *Negara*. He advocated a method that can distinguish between a twitch and a wink, which he deployed in an essay that describes the complex betting system of a blood sport broken up by the police. For 10 points, name this cultural anthropologist whose *The Interpretation of Cultures* includes the essays "Thick Description" and "Deep Play: Notes on the Balinese Cockfight."

ANSWER: Clifford (James) Geertz ("gurts")

<JR Social Science/Thought>

16. A popular author from this country dubbed a 106 percent tax rate that she incurred the “Pomperipossa Effect.” A book by Marquis Childs discussed this country’s “middle way,” which was based on the concept of the “people’s home.” This non-African country was the site of an action attributed to Craig Williamson by Eugene de Kock. In this country, a coalition with the Farmer’s League broke up over the ATP compulsory pension system proposed by the (*) Erlander government. This country’s Social Democratic Party ruled it for 40 years starting in 1936. Some theories connect the South African police or this country’s Bofors arm company to the unsolved killing of its prime minister in 1986. For 10 points, name this Scandinavian country once led by Olof Palme, the home of diplomats Raoul Wallenberg and Dag Hammarskjöld.

ANSWER: Sweden [or Sverige]

<JB European/British History>

17. In 2015, Robert Green found pieces of one of these designs by Doves that Cobden-Sanderson threw into the Thames a century ago. Maximilien Vox expanded Thibaudeau’s classification of these designs, which has groups like humanist and grotesk, unlike Panose. Ottmar Mergenthaler’s invention to cast long slugs using matrices of these designs replaced composing sticks and devils who sorted a hellbox of metal pieces of these designs. Droid and other ones designed by Steve Matteson at the Ascender (*) foundry are distributed in formats like OTF on many phones and computers. Modern ones include Didot and Bodoni, and old-style ones include Caslon and Garamond. For 10 points, name these designs used to print text, such as Times or Helvetica.

ANSWER: typefaces [accept any answer including the word font or type; accept Linotype; prompt on “sorts,” “letters,” “characters,” or similar; do not accept devices like “printing press”]

<OL Mythology/Other>

18. These complexes inhibit the expression of inflammatory mediators VCAM-1 and ICAM-1 on the surface of vascular endothelial cells. These complexes bind to the SR-B-1 receptor to mediate their selective hepatic uptake. The major protein component of these structures has a Milano variant. Recently, the CETP inhibitors dalcetrapib and evacetrapib, which aim to (*) increase serum levels of this complex, have been shown in phase III trials to be ineffective in improving overall cardiovascular health. Higher serum levels of these complexes are correlated with lower risk of heart attacks, but are probably not causative. The major protein component of these complexes is called Apo-A1. These particles are involved with the reverse transport of cholesterol from tissues to the liver. For 10 points, name these “good” lipoprotein-cholesterol particles, which are often contrasted with LDL.

ANSWER: HDL [accept high-density lipoprotein; prompt on answers like lipoprotein-cholesterol complexes; prompt on “good cholesterol,” but do not accept or prompt on just “cholesterol”]

<SP Biology>

19. This poet promises to stop his infidelity by drinking his lover’s “potion,” claiming “no bitterness that I will bitter think, nor double penance to correct correction.” In that poem, he calls his writing a “public means which public manners breed” and compares his branded name to a “dyer’s hand.” In another poem, he describes an entity “whose worth’s unknown, although his height be taken.” He described that entity as “the star to every wandering bark” and “an ever-fixed mark,” and claims that it is not true if it “bends with the remover to remove” or if it (*) “alters when it alteration finds.” This author of “Let me not to the marriage of true minds” declared that his beloved “shall not fade... so long lives this, and this gives life to thee” after calling her “more lovely and more temperate.” For 10 points, name this author whose sonnets include “Shall I compare thee to a Summer’s day?”

ANSWER: William Shakespeare [do not accept “Earl of Oxford,” “Christopher Marlowe,” etc. from trolls]

<JR British Literature>

20. This instrument's cadenza over violin tremolos and cymbal ends the violin solo in the orchestral *Tzigane* ("tsee-GAHN"). Renié ("run-YAY") and Salzedo ("salt-SAY-doh") name methods for playing this instrument. Its special techniques include *bisbigliando* and *près de la table* ("pray duh lah TAHB"). It's not the piano, but Pleyel's chromatic version of this instrument was used for Debussy's *Sacred and Profane Dances*. Its default key is C-flat major. This instrument introduces the "Výšehrad" ("VISH-eh-rah") theme at the beginning of Smetana's *Má vlast*. Ravel's (*) *Introduction and Allegro* features Érard's double-action version of this instrument. This instrument accompanies the violin solos in *Scheherazade*. A cadenza for it opens the "Waltz of the Flowers" in the *Nutcracker*. Glissandos for this instrument follow the flute solo at the start of *Prelude to the Afternoon of a Faun*. For 10 points, name this instrument with seven pedals and 47 strings that are plucked by hand.

ANSWER: harp [or concert harp; or pedal harp]

<OL Auditory Arts>

Bonuses

1. Answer the following about the history of the Social Security program of the United States, for 10 points each.

[10] The Social Security Act, which created a national old-age pension system, was passed by Congress in 1934 during the presidency of this man. He introduced numerous economic reforms as part of his New Deal.

ANSWER: Franklin Delano Roosevelt [or FDR; prompt on just “Roosevelt”]

[10] This woman helped draft the Social Security Act as Roosevelt’s Secretary of Labor.

ANSWER: Frances Perkins (Wilson) [or Fannie Coralie Perkins]

[10] This Supreme Court case established that there is no contractual right to Social Security benefits. It arose after a man was denied benefits because he had been deported for being a member of the Communist Party.

ANSWER: Flemming v. Nestor [accept either]

<WC American History>

2. This statement can be derived by starting from the Crooks fluctuation theorem and integrating over all possible microstates. For 10 points each:

[10] Name this statement, according to which the negative exponential of “work done during a process, over kT ,” averaged over all possible paths, equals the same function of the change in free energy.

ANSWER: Jarzynski (“YA-zhin-ski”) equality

[10] The Jarzynski equality is important in the study of thermodynamics where *this* condition does not hold. In this condition, there is no net matter or energy flow between systems, so that everything has the same temperature.

ANSWER: thermodynamic equilibrium

[10] The Crooks fluctuation theorem relates parameters of *this* type for a process and its reverse. In the canonical ensemble, this value for a particular state is given by its Boltzmann weight divided by the partition function.

ANSWER: probabilities [or joint probabilities; or occupation probabilities]

<SE Physics>

3. Answer some questions about choice in economic theory, for 10 points each.

[10] This economist pioneered social choice theory in a book that shows that there is no social preference ordering with all of five desirable conditions, his namesake impossibility theorem.

ANSWER: Kenneth (Joseph) Arrow

[10] Mancur Olson’s study of public choice in *The Logic of Collective Action* centered on a form of *this* problem in which a minority can dominate. This problem arises when people benefit from stuff they haven’t paid for.

ANSWER: free rider problem

[10] This German-American economist discussed consumers’ choice to stop buying a brand or complain about it, in the book *Exit, Voice, and Loyalty*.

ANSWER: Albert Otto Hirschman

<JR Economics/Psychology>

4. The Latin word *persona* originally referred to one of these objects. For 10 points each:

[10] Name these objects that are an integral part of the costume in *Noh* drama. These objects are used all over the world in rituals where one person adopts the identity of another.

ANSWER: masks

[10] One of the best-studied masquerade rituals is *this* Yoruba dance, which also uses brightly-colored cloth lappets. This ritual plays an integral part in Soyinka's *A Dance of the Forests*.

ANSWER: eggun [do not accept "egwugwu"]

[10] An odd-looking hunter depicted in *this* location may be wearing a bird-mask. This cave complex in southern France contains some of the best-preserved cave paintings in Europe.

ANSWER: Lascaux

<JR Other Arts>

5. In Samuel Beckett's story "Fingall," Belacqua can't stop thinking about one of these vehicles while with his girlfriend Minnie. For 10 points each:

[10] Name this sort of vehicle which kills Mrs. Loy's dog in Beckett's *Molloy*. One story claims that Beckett heard the title of *Waiting for Godot* while watching a race for this sort of vehicle, the Tour de France.

ANSWER: bicycles [or bikes]

[10] In Beckett's play *Endgame*, Nag and Nell lost their legs in a tandem bicycle accident, which accounts for them spending the action of the play inside of these objects.

ANSWER: ashbins [accept garbage cans, trash cans, or obvious equivalents]

[10] In this other Irish work of absurdism, Sergeant Pluck explains his theory about the transfer of atoms between bicycle and rider. This novel ends with him asking "Is it about a bicycle?"

ANSWER: *The Third Policeman* (by Flann O'Brien)

<JB British Literature>

6. This object for the Lie ("lee") group $SL\text{-}sub\text{-}2\text{-of-}R$ is a classic example of a finite-dimensional Lie group that cannot be represented using matrices. For 10 points each:

[10] Name this unique *simply-connected* space that can be mapped onto a given space "like a stack of pancakes."

ANSWER: universal cover [or universal covering space; do not prompt on partial answers]

[10] You can get the "smallest" space covered by a given simply-connected space by quotienting out by its center. In general, the center of a group consists of all elements with *this* property, which matrix multiplication does not have.

ANSWER: commutativity [accept word forms like commutative or commute]

[10] For dimension greater than one, *these* objects are the universal cover of n -dimensional projective space. These objects consist of all points a given distance away from a central point.

ANSWER: n -spheres

<JR Other Science>

7. The eighth British monarch of this name abdicated the throne to marry the American divorcee Wallis Simpson, and was succeeded by his younger brother George VI, who made him Duke of Windsor. For 10 points each:

[10] Give this name shared by that monarch and Queen Victoria's successor, who was the seventh of this name.

ANSWER: Edward

[10] This Conservative prime minister, who preceded Neville Chamberlain, encouraged Edward VIII's abdication. His government created the Hoare-Laval Plan to offer Mussolini control over Ethiopia in exchange for a truce.

ANSWER: Stanley Baldwin

[10] While touring economically depressed areas of this region, Edward VIII visited a steel works at Dowlais, where he gained popularity for remarking that "something must be done" to help the people there find work.

ANSWER: Wales

<WC European/British History>

8. Answer the following about babysitters in American short fiction. For 10 points each:

[10] Francis Moon fantasizes about a babysitter in this author's story "The Country Husband." In another story by this author, Neddy Merrill finds his house deserted after travelling home on the "Lucinda River."

ANSWER: John Cheever

[10] In Raymond Carver's "Fever," Carlyle tries to find a babysitter for his children after his wife leaves him to work as an artist in this state. Okies travel to find work in this state in John Steinbeck's *Grapes of Wrath*.

ANSWER: California

[10] The title character chokes the Tucker's baby with a diaper pin and lets him drown in the bathtub in two of the fragmented storylines in this author's postmodern story "The Baby Sitter."

ANSWER: Robert Coover

<JB American Literature>

9. Immediately before this event, there will be three consecutive, horrible winters. For 10 points each:

[10] Name this Norse event in which most gods will die fighting against their mortal enemy. Lif and Lifthrasir will survive this apocalyptic event to repopulate the earth.

ANSWER: Ragnarok

[10] According to Vafthrudnir, Lif and Lifthrasir will survive Fimbulwinter and Ragnarok by hiding in this forest.

ANSWER: Hoddmimis holt [or Hoddmimir's forest]

[10] Many theories posit that Hoddmimis holt is simply another name for *this* location, where the four deer Dainn, Dvalinn, Duneyrr, and Durathror take shelter.

ANSWER: Yggdrasil

<AF Mythology/Other>

10. The antiphonal use of this technique was pioneered by Adrian Willaert ("AH-dree-on VIL-art"). For 10 points each:

[10] Name this musical technique made famous by works like "In Ecclesiis" ("een ek-CLAY-see-ese") by Giovanni Gabrieli.

ANSWER: polychoral writing [prompt on descriptions like "using more than one chorus"]

[10] Polychoral writing was a hallmark of music written for this Italian city's St. Mark's Cathedral. This port was able to afford so many musicians because of its advantageous location in a lagoon on the Adriatic.

ANSWER: Venice [or Venezia]

[10] This Italian composer took control of music at St. Mark's in 1613. He wrote the *1610 Vespers* and early operas like *L'Orfeo*.

ANSWER: Claudio (Giovanni Antonio) Monteverdi

<JR Auditory Arts>

11. Colistin is a polymyxin antibiotic that is generally considered a drug of last resort due to its toxicity to this organ. For 10 points each:

[10] Name this organ to which amphotericin B is toxic. Serum creatinine is a good measure of this organ's function.

ANSWER: kidneys

[10] Like other polymyxins, colistin works by binding to and displacing counterions complexed by these endotoxins on the outer surface of gram-negative bacteria. These large molecules are responsible for strong immune responses in animals.

ANSWER: lipopolysaccharides [accept LPS or lipoglycans]

[10] Linezolid, another antibiotic of last resort, prevents the formation of the initiation complex of this organelle. This organelle is formed by binding of 30S and 50S subunits, and is the site of mRNA translation.

ANSWER: ribosome

<SP Biology>

12. Answer some questions about the early history of rice cultivation, for 10 points each.

[10] It has been hypothesized that people on *this* island learned to grow rice relatively early, partly explaining their ability to fend off invasions. Like Timor, this island is split between Indonesia and a namesake country.

ANSWER: **New Guinea** [do **not** accept “Papua New Guinea”]

[10] Although some archaeologists argue that rice was cultivated earlier, they all agree that *this* grain was the staple crop of ancient China, including the Yellow River civilization. Its “pearl” variety is a staple of the Sahel.

ANSWER: **millet**

[10] Growers soon learned to plant rice with the mosquito fern, an example of *this* practice of growing multiple specific plants together. Another example of this practice was the “Three Sisters” of squash, maize, and beans.

ANSWER: **companion planting** [prompt on “polyculture,” “multi-cropping,” “multiple cropping,” or “intercropping”]

<JR World History>

13. Answer some questions about the philosophy of Humanism, for 10 points each.

[10] Much of our current understanding of humanist philosophy is due to this German expatriate, who edited *The Renaissance Philosophy of Man* with Ernst Cassirer. His essays are collected in *Renaissance Thought and the Arts*.

ANSWER: Paul Oskar **Kristeller**

[10] Kristeller worked extensively on *this* humanist, who translated the complete works of Plato and headed the Platonic Academy in Florence. This man also wrote *Three Books on Life* and *Platonic Theology*.

ANSWER: Marsilio **Ficino**

[10] Ficino re-introduced the “platonic” variety of this concept, which is non-sexual. This topic is discussed in the *Symposium*.

ANSWER: **love** [or **Eros**]

<JR Philosophy>

14. This book’s discussion of “social forms” includes a lengthy section on abstract “Group Formation and the Development of Individuality.” For 10 points each:

[10] Name this book whose other sections include excursions on “fashion” and “The Stranger.” It is generally considered the *magnum opus* of Georg Simmel.

ANSWER: **Soziologie** [or **Sociology**]

[10] Simmel’s prime example of “The Stranger” is *this* ethnic minority in Germany. Like most of the great German scholars of his time, Simmel was born into this non-Christian faith.

ANSWER: **Jews** [accept equivalents like **Judaism**, **Hebrews**, etc.]

[10] Simmel is also well-known for a standalone essay about the effect of *this* entity on the “mental life” of modern people. Jane Jacobs is best-known for her studies of these entities.

ANSWER: the **city** [or the **metropolis**; accept equivalents like **urban environments**]

<JR Social Science/Thought>

15. The protagonist of this novel is advised by her teacher to sell her mealies to white people after she gets into a fight with a relative who was stealing from her garden. For 10 points each:

[10] Name this novel whose protagonist Tambu befriends Nyasha and goes to a school run by her wealthy uncle Babamukuru.

ANSWER: Nervous Conditions

[10] In Tsitsi Dangarembga's *Nervous Conditions*, Tambu opposes the marriage of her parents in a ceremony of this religion. Stephen Kumalo is a priest of this religion in Alan Paton's *Cry the Beloved Country*.

ANSWER: Christianity [accept more specific answers]

[10] *Nervous Conditions* opens with Tambu claiming that she was not sorry when a person with *this* relation to her died. In a play, Zachariah has this familial relation to a character who becomes Ethel Lange's pen pal.

ANSWER: brother

<JB Other Literature>

16. Answer the following questions about asymmetric synthesis, for 10 points each.

[10] Acyl chlorides can be reacted with the Evans oxaza-borolidine auxiliary and then deprotonated to form chiral enolates, which then undergo this reaction with electrophilic C–X bonds asymmetrically. The Trost reaction also allows this reaction to proceed asymmetrically.

ANSWER: (allylic or enolate) alkylation

[10] The asymmetric reduction of ketones and aldehydes that uses a chiral borane reagent is named for Bakshi, Shibata, and this famous chemist. This chemist also names a reaction that does the reverse with Kim.

ANSWER: Elias James (E. J.) Corey

[10] The goal of asymmetric synthesis is to generate an excess of one of these isomers over the other. Two chiral compounds are called this if they are non-superimposable mirror images of one another.

ANSWER: enantiomers

<SP Chemistry>

17. Recently-deceased Booker prize-winning novelist Anita Brookner kick-started a modern reevaluation of this artist with her 1972 monograph on him. For 10 points each:

[10] Name this 18th-century French painter of genre scenes like *The Broken Pitcher*. Diderot and other observers approved of his conservative, “moral” style, as opposed to the “frivolity” of Boucher (“boo-SHAY”).

ANSWER: Jean-Baptiste Greuze

[10] Throughout his life, Greuze displayed his most important pieces at *this* annual exhibition of the Académie des Beaux-Arts (“day boh-ZAR”). In 1863, works rejected from this exhibition were displayed at a similarly-named one “des Refusés.”

ANSWER: salon [accept Salon des Refusés]

[10] In Greuze's once-famous *The Broken Pitcher*, one of *these* animals sits on the right-hand side in the darkness by the well. These animals are often depicted alongside St. Jerome, who removed a thorn from one's paw.

ANSWER: lions [prompt on “cats”]

<JR Visual Arts>

18. It's Christmas Eve and you're Russian Orthodox. Answer some questions about it, for 10 points each.

[10] You're celebrating Christmas Eve on what most people call the sixth of January, because the Russian Orthodox Church still swears by *this* calendar, which was largely replaced by the Gregorian calendar.

ANSWER: **Julian** calendar

[10] The All-Night Vigil you'll be keeping ends with matins, and begins in the evening with *this* liturgical office.

ANSWER: Great **Vespers** [accept Great **Compline**]

[10] Just like every service, at the end of the All-Night Vigil, you'll sing an *apolytikion*, which is one of *these* short, one-stanza hymns, which are contrasted with *kontakia*.

ANSWER: **troparion** [or **troparia**]

<JR Religion>

19. This man's funeral urn was carried by the historian Polybius. For 10 points each:

[10] Name this leader of the Achaean League, who led the final subjugation of Sparta. He was dubbed "the last of the Greeks," according to Plutarch.

ANSWER: **Philopoemen**

[10] Philopoemen and the Achaean League allied with *this* kingdom against the Aetolian League while this kingdom was ruled by Philip V. Earlier leaders of this kingdom north of Greece included Alexander the Great.

ANSWER: **Macedonia**

[10] The Achaean League was defeated by Rome in 146 BC, when Rome razed this Greek city-state. This city was able to control trade due to its location on the isthmus joining the Peloponnese to the mainland.

ANSWER: **Corinth**

<JR European/Ancient History>

20. A poem by this author lists "the fig tree, the horses, the ants," and "the shoulder of stone" as things that "do not know" the addressee. For 10 points each:

[10] Name this author of *Gypsy Ballads* whose best-known poem includes the section "The Spilled Blood" and repeats lines such as "I will not see it!" and "At five in the afternoon."

ANSWER: Federico García **Lorca**

[10] The aforementioned García Lorca poem laments the death of Ignacio Sánchez Mejías ("may-HEE-us") in this bloody Spanish sport, which the characters of Hemingway's *The Sun Also Rises* watch in Pamplona.

ANSWER: **bullfighting** [do **not** accept "Running of the Bulls"]

[10] "Lament for the Death of a Bullfighter" tells this thing to come and compares it to the "Horse of still clouds." This thing converses with a beggar woman representing Death in Lorca's Blood Wedding.

ANSWER: the **moon**

<JB European Literature>