

**2020 WORKSHOP:** We Oughtta pRopose aKronymS aHead Of Ptime

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**Packet 6**

**Tossups**

1. **This composer’s wife wrote the libretto for a one-act opera by him under the pseudonym “Max Blonda.” This composer used a mammoth orchestra including two contrabassoons, four harps, and four piccolos in an early cantata about the Danish King Waldemar’s love for Tove. The title character describes “the wine we drink with our eyes” in the opening song of a piece by this composer of the (\*) “monodrama” *Erwartung* [“ear”-VAHR-tuung]. That 1912 work by this composer of *Gurre-Lieder* calls for violin, clarinet, flute, cello, and piano and uses a half-spoken singing style called *sprechstimme* [SHPREK-shtih-muh]. For 10 points, name this Second-Viennese-School composer of *Pierrot Lunaire* [pyeh-ROH loon-“AIR”], who pioneered atonality and invented the twelve-tone system.**

ANSWER: Arnold **Schoenberg** [SHURN-burg] <MJ>

2. **The majority of this substance is derived from a reservoir modeled by Workman as the product of a primitive source losing LREEs [“L R E Es”]. Samples gathered by the Alvin during Project FAMOUS provided early evidence that incompatible elements had been depleted from examples of this substance called MORB. This substance is the primary component of guyots [GHEE-“oats”], which can be formed along the (\*) tracks left as this rock is carried up by convection. The reversing magnetic alignment of this rock provides evidence for seafloor spreading at the mid-ocean ridges where most of it is formed. This rock covers over seventy percent of the Earth in the form of oceanic crust. For 10 points, name this low-viscosity rock that is produced from shield volcanoes like those of Hawaii.**

ANSWER: oceanic **basalt** [accept mid-ocean ridge **basalt** or oceanic island **basalt**; accept **MORB** before mentioned; prompt on igneous rocks; prompt on oceanic crust or the ocean floor with “What substance is that made of?”] <GH>

3. **During this campaign, one commander telegraphed Washington complaining that “you have done your best to sacrifice this army” following a defeat. John Bell Hood was promoted after piercing the Union centre at that battle, a Confederate attack on Gaines’ Mill. Union artillery repelled uncoordinated infantry charges at the Battle of Malvern (\*) Hill, the final engagement of this campaign. The ironclad *Virginia* was scuttled during this campaign, which followed a naval battle at Hampton Roads. After Joseph E. Johnston was wounded at the Battle of Seven Pines in this campaign, Robert E. Lee was appointed to lead the Army of Northern Virginia. For 10 points, name this 1862 campaign that began when George McClellan’s Army of the Potomac landed on its namesake geographical feature.**

ANSWER: **Peninsula** Campaign [accept **Peninsular** Campaign, prompt on Seven Days’ Battles] <KF>

4. **To protest the planned expansion of a facility primarily intended for the use of these objects, Zac Goldsmith resigned as a Conservative MP in October 2016. In 2017, the Trump administration threatened to impose duties of almost 300% on a Canadian manufacturer of these objects accused of selling them below cost in the United States. After a failed takeover by Indigo Partners, a company founded by Skúli (\*) Mogensen that operates these objects suddenly went bankrupt in March 2019. The introduction of the MCAS system into a specific type of these objects, combined with falsely high angle of attack input data, led to two accidents that took place in Ethiopia and the Java Sea. For 10 points, name these objects, examples of which include the Bombardier C-Series and the Boeing 737.**

ANSWER: **airplanes** [or **aircraft**, accept **Boeing 737s** before mention] <CS>

5. In one novel by this author, an illegitimate daughter sleeps on the streets outside her father's house after he fails to bring her to see the film *Pinocchio*. In response to being hit with pomegranates, one of this author's characters smashes a pomegranate against his own forehead and leaves. While working at a flea market with his father, one of this author's protagonists meets the daughter of (\*) General Taheri, who he later marries. A novel by this author concludes with the protagonist accompanying the orphan Sohrab to a San Francisco park. Mariam helps Laila escape the abusive Rasheed in this author's novel *A Thousand Splendid Suns*. For 10 points, name this author who wrote about Hassan and Amir in *The Kite Runner*.

ANSWER: Khaled Hosseini <CMA>

6. This thinker described custom as a “magical influence,” which is not only “second nature, but is continually mistaken for the first.” This philosopher claimed that “barbarous” peoples did not understand the concept of “reciprocity,” justifying their colonization. This author of “A Few Words on Non-Intervention” was raised in near-total isolation from other children and taught Greek from the age of three by his father, who wrote *Elements of (\*) Political Economy*. This thinker argued for a distinction between “higher” and “lower” pleasures to refine the principle of utility. Harriet Taylor co-wrote *The Subjection of Women* with this thinker, who claimed that personal behavior should only be regulated according to the “harm principle.” For 10 points, name this author of *On Liberty*.

ANSWER: John Stuart Mill <ZK>

7. A sequence in this film includes shots of the Sistine Chapel ceiling and features a sailor telling the protagonist to “go down below.” While at a doctor's office, a character in this film examines a copy of *Time Magazine* with the headline “Is God Dead?” During this film's climax, the protagonist's husband covers his face as his wife yells “What have you done to its eyes?” This film was its director's last collaboration with composer (\*) Krzysztof Komeda [KSHISH-toff koh-MAY-dah]. After eating drugged chocolate mousse, this film's protagonist realizes that her dream “is really happening.” In this film, the John Cassavetes-played Guy Woodhouse makes a deal with his neighbors, the Castevets, who later cause his wife to be pregnant with Satan's child. Mia Farrow stars in—for 10 points—what 1968 film by Roman Polanski?

ANSWER: Rosemary's Baby <ES>

8. This quantity can be estimated by treating molecules as cubes and measuring the heat of sublimation. The spreading parameter equals one value of this quantity minus two others. The distance from the center of a crystal to a face is proportional to this quantity according to Wulff's theorem, which can be used to calculate a crystal's equilibrium shape. Three values of this quantity are related to the cosine of the (\*) contact angle by Young's equation. For constant temperature and pressure, this quantity is the derivative of Gibbs free energy with respect to area. This quantity is lowered by SDS and other detergents. Capillary action results from the minimization of—for 10 points—what quantity, which measures how strongly the molecules of a liquid are attracted to each other at a boundary?

ANSWER: surface tension [or surface energy; or surface free energy; or interfacial free energy; prompt on gamma] <GH>

9. *Note to Players: Original-language term or English equivalent acceptable. Note to Moderator: Read answerline carefully.*

**Holders of this title used a council including ministers of agriculture and finance, a general called a *balama*, and an admiral called *hi koy*. Holders of this title often used their reputations as *tierkei* sorcerers to maintain control. A holder of this title asks seven questions of the scholar al-Maghili in an early political theory text. Holders of this title ruled from a permanent capital after its holder, (\*) Kossoi, converted to Islam. The Sonni dynasty of holders of this title was overthrown by a general who established a custom of using “Askia” to refer to holders of this title. This title grew in importance after one of its holders defied an empire that was ruled by *mansas* to retake control of Gao. For 10 points, name this title held by the rulers of an empire that established hegemony over West Africa after the decline of Mali.**

ANSWER: Dia [accept Askia before mention; accept King or Ruler or Emperor or synonyms thereof of Songhay] <JM>

10. **In this novel, a man calls a warden on the phone only to hear “a humming” like “the murmur of countless childish voices.” A mayor in this novel tells his wife Mizzi to search a cupboard filled with papers for a single decree. The protagonist of this novel is repeatedly asked questions he refuses to answer by “Mr. Secretary Momus.” In this novel, two indistinguishable assistants are called (\*) Arthur despite one of their names being Jeremiah. Those assistants accompany this novel’s protagonist as he receives a letter from the messenger Barnabas. In this novel set near a structure owned by Count Westwest, a land surveyor repeatedly fails to reach Klamm. For 10 points, name this unfinished Franz Kafka novel in which K. tries to enter the title building.**

ANSWER: *The Castle* [or *Das Schloss*] <OL>

11. **During these events, barley-rice balls mixed with ghee and black sesame seeds are offered to ancestors. At the beginning of these events, the big toes of one person are tied together with string. The phrase “the name Ram is the truth,” or *Ram Naam Satya hai* is chanted during these events. The Terahvin ceremony is sometimes held thirteen days after these events, which form the last (\*) *sanskara* and are called *antyeshti*. The *karta* initiates these events by drawing lines in the ground representing Yama and Kala. The central figure of these events is wrapped in red or white cloth before the *kapala kriya*, or piercing of the skull. The practice of *sati* once took place during—for 10 points—what rites, during which ashes might be dispersed in the Ganges River?**

ANSWER: Hindu funerals [or antyeshti before mention; accept cremations] <RRP>

12. **R.D. Laing’s books on mental illness inspired this photographer’s last, untitled series, in which most of the subjects are masked. This artist’s estate did not authorize a biography by Patricia Bosworth, which inspired the 2006 biopic *Fur*. Howard Nemerov likely committed incest with this artist, who made a square photo of a young man wearing a straw hat, a suit, and a (\*) “Bomb Hanoi” button four years before committing suicide in 1971. This photographer depicted the “Jewish Giant” Eddie Carmel and other “freaks” and made a photo that inspired the twins in Stanley Kubrick’s *The Shining*. An overall strap falls off Colin Wood’s shoulder as he clutches an “Mk 2 Pineapple” in—for 10 points—what woman’s photo *Child with Toy Hand Grenade in Central Park*?**

ANSWER: Diane Arbus [accept Diane Nemerov until “Nemerov”] <GE>

13. **A book whose title references this earlier book introduces a distinction between routine production, in-person, and analytic-symbolic services while discussing the “Three Jobs of the Future.” David Graeber criticized this book’s view that monetary policy should be limited to guaranteeing the “soundness of the currency.” This book argues that the expansion of commerce let lords spend their wealth on luxuries instead of maintaining serfs, which promoted (\*) personal liberty. This book criticizes the view that prosperity results from maximizing exports and minimizing imports and instead claims that free trade brings about the best economic outcomes. For 10 points, name this book that argued against mercantilism by invoking concepts like the “invisible hand,” a 1776 work by Adam Smith.**

ANSWER: *An Enquiry into the Nature and Causes of the Wealth of Nations* <CS> (The first work mentioned is Robert Reich's *The Work of Nations*.)

14. A newspaper once run by this party uses the slogan “in an ideal world, [this newspaper] would not exist”. After this party was targeted by Operation Gladio, a port city that it traditionally controlled became a hub of heroin trafficking. After this party's support for the 110 Propositions program in 1981 caused it to decline in popularity, it was forced to sell its newspaper, (\*) *Humanity*. A young Ho Chi Minh attended the 1920 conference at which this party was formed. This party ordered the CGT trade union to launch a general strike in May 1968. This party's leader Maurice Thorez led it into a Popular Front coalition under Léon Blum. For 10 points, name this party which led resistance to Nazi Germany and Vichy collaborationists and backed Joseph Stalin after the war.

ANSWER: French Communist Party [accept Parti Communiste Français or PCF; accept French Section of the Communist International or Section française de l'Internationale communiste or SFIC; accept French Section of the Workers' International or Section française de l'Internationale ouvrière or SFIO until “110;” prompt on partial by asking “In which country?”; do not accept or prompt on “Socialist Party” or “Parti Socialiste”] <PJO>

15. Tang et al. used SOLiD kits to analyze this compound and increased that technique's sensitivity high enough to require only a single cell. Even lower-quality samples of this compound can be protected enough to be assayed in an NPA. The abiogenesis of this molecule is thought to have proceeded through plant pathogens called viroids. DGCR8 and Drosha modify this compound in a pathway used to (\*) decrease knock-down gene expression. Specially tailored instances of this molecule serve as guides that direct the activity of Cas9, and it is detected by Northern blots. This molecule is amplified by primers that span exon-exon junctions in reverse transcription PCR. For 10 points, name this single-stranded nucleic acid.

ANSWER: RNA [accept mRNA or messenger RNA; accept microRNA or miRNA; accept siRNA, small interfering, short interfering, or silencing RNA; accept ribonucleic acid in place of “RNA”] <JS>

16. One of this author's characters throws away a rose that a typist with bad handwriting gives him because he simply doesn't “like roses.” That character drinks Gibsons in a “men's bar” as he waits for the title train to arrive. In a novel by this author, a heroin addict is sent to prison for fratricide, where he engages in an affair with Jody. Grace calls the protagonist of one of this author's short stories a (\*) “gate-crasher” at the Biswangers' party. This author of “The Five-Forty-Eight” wrote a novel in which Cousin Honora purchases a boat named the *Topaze*, causing Moses and Coverly to leave St. Botolphs. For 10 points, name this New England author of *Falconer*, *The Wapshot Chronicle*, and short stories like “The Swimmer.”

ANSWER: John Cheever <AR>

17. This ethnic group's “way” is the focus of a 2001 book by Mark Elliott that asserts that their merchants invented an early version of the soccer penalty shootout called “pearl-kicking.” This ethnic group took advantage of an early form of affirmative action where, except for the top three ranks, they were granted the majority of *Jinshi* positions. While in power, members of this ethnic group decided to eliminate an institution that tested candidates based on their ability to write the (\*) Eight-Legged Essay as part of the Hundred Days Reform. This ethnic group mandated wearing their traditional queue hairstyle for their subject peoples. The House of Aisin-Gioro was the ruling dynasty of these people. For 10 points, identify these people who ruled over China during the Qing Dynasty.

ANSWER: Manchu [Accept Jurchens, do not accept “Qing”] <ZF>

18. Linguist Barry Blake has argued that if a language has a particular one of *these* linguistic features, it will have all the ones “lower” than that one as well; that is known as his “hierarchy” of these things. Verbs like “consider,” “assume,” and “believe” allow an “exceptional” type of this feature in the embedded clause. Languages can be divided into systems of these things based on alignments between subjects, agents, and patients. That is known as (\*) morphosyntactic alignment, and examples of those systems of these things include active–stative and nominative–accusative. The process of modifying words for this feature is known as “declension.” For 10 points, give this term for the system of marking nouns and adjectives for their function in a sentence.

ANSWER: marking grammatical cases [accept case marking; prompt on declensions before mention] <MB>

19. One of this author’s characters buys a bag of rocks from a woman living at Pension Dressler and gives her his collapsible canoe to escape Jacksonburg. A woman in a novel by this author reacts with relief when she learns that her son has been killed in a riding accident instead of her lover with the same first name. In a novel based on this author’s time as a war correspondent in (\*) Abyssinia, the Daily Beast sends the wrong man named Boot to cover a civil war in Ishmaelia. In another of this man’s novels, Tony Last leaves Hetton Abbey after divorcing Brenda due to her affair with John Beaver, but is captured in South America and forced to indefinitely read Dickens aloud. For 10 points, name this author of the satirical novels *Scoop*, *A Handful of Dust*, and *Brideshead Revisited*.

ANSWER: Evelyn Waugh <JMA>

20. Shu-Li You’s group pioneered a class of reactions in which compounds *lose* this property known as CADA reactions. When a nucleophile displaces a substituent of a molecule with this property, the intermediate is a negatively-charged compound called a Meisenheimer complex. The cationic intermediate in a class of reactions on compounds with this property is stabilized by substituents known as (\*) activators, which are also ortho-para directors. A compound with this property is nitrated by sulfuric acid and nitric acid in a classic example of their electrophilic substitution. Molecules with this property must have  $4n + 2$  pi electrons by Huckel’s rule. For 10 points, name this property characterized by the combination of being planar, cyclic and resonant, as exemplified by benzene.

ANSWER: aromaticity [or aromatic compounds; prompt on rings; prompt on cyclic compounds; prompt on resonant compounds or word forms] <VF>

## 2020 WORKSHOP

### Packet 6

#### Bonuses

1. Judith Butler commented that this book's opening line gave an early distinction between the notions of sex and gender. For 10 points each:

[10] Name this 1949 book that takes down both biological determinism and works by Freud and Engels in its first volume. It notoriously claims that "homosexuality is no more a deliberate perversion than a fatal curse."

ANSWER: *The **Second Sex*** [or *Le **Deuxième Sexe***]

[10] *The Second Sex* was written by *this* French existentialist, who substantially improved upon the ideas of her partner Jean-Paul Sartre in the book *The Ethics of Ambiguity*.

ANSWER: Simone de **Beauvoir**

[10] *The Second Sex* was a profound influence on *this* book by Kate Millett, whose section on "The Literary Reflection" attacks the patriarchal views of authors like Norman Mailer and Henry Miller.

ANSWER: ***Sexual Politics*** <CM>

2. In a "Request to" this character, the speaker claims, "Lust bears like volts, who'll amplify, and strange / The worm is (pinpoint) rational in the fruit." For 10 points each:

[10] Name this *first* title character of a poem that describes how "A shudder in the loins engenders there / The broken wall, the burning roof and tower."

ANSWER: **Leda** [accept **Leda** and the Swan]

[10] This author repeats "Not your winged lust but his must now change suit" in his poem "Request to Leda." This Welsh author's most famous poem is "Do not go gentle into that good night."

ANSWER: Dylan **Thomas** [or Dylan Marlais **Thomas**]

[10] Captain Cat describes "Seas gliding with swans / In the seal-barking moon" in this Dylan Thomas radio play. This "play for voices" is set in the seaside town of Llareggub.

ANSWER: ***Under Milk Wood*** <CMA>

3. This case struck down the Missouri Compromise and said that Congress could not ban slavery in federal territories. For 10 points each:

[10] Name this 1857 case, whose majority opinion was written by Roger Taney and held that blacks were never meant to be citizens.

ANSWER: ***Dred Scott*** v. ***Sandford*** [accept either underlined part]

[10] The Taney Court's pro-slavery orientation was reversed under this chief justice who succeeded him. This man also served as Abraham Lincoln's treasury secretary.

ANSWER: Salmon P. **Chase**

[10] This 1842 case, in which the Court struck down a slave catcher's conviction under a state ban, set the precedent for federal intervention in state anti-slavery laws. This case led to the passage of several "personal liberty" laws.

ANSWER: ***Prigg*** v. *Pennsylvania* <PJO>

4. The Artin reciprocity law can be formulated as a relation between the Artin and Hecke forms of these objects, an observation that the Langlands program seeks to generalize. For 10 points each:

[10] Name these complex functions in analytic number theory that Langlands connected to automorphic representations.

ANSWER: L-functions [accept Artin L-functions, Hecke L-functions, or automorphic L-functions; prompt on, but do not reveal, zeta functions]

[10] This mathematician's namesake series are called L-functions when they use a character modulo some integer as coefficients. His namesake theorem guarantees that there are infinite primes equal to  $a \pmod d$  for coprime  $a$  and  $d$ .

ANSWER: Johann Peter Gustav Lejeune **Dirichlet** [accept **Diriclet** series, **Dirichlet** characters, **Dirichlet** L-functions, or **Dirichlet** prime progression theorem]

[10] The simplest Dirichlet series is the Riemann zeta function, whose zeros are related to the distribution of these numbers. Euler proved there were infinite of these numbers, which only have one proper factor.

ANSWER: **prime** numbers <GH>

5. In an ad, a woman in a one-piece bathing suit is holding this beverage with the taglines "Ours is best!" and "The National Flavor!" For 10 points each:

[10] Identify this yellow bubblegum-flavored carbonated beverage produced by the Lindley Corporation. This beverage is sold by Coca-Cola everywhere around the world, except in the country where it is produced.

ANSWER: **Inca Kola** [accept **Golden Kola**]

[10] Inca Kola is named for a former empire in *this* South American nation whose national drink is created by combining pisco with lime juice, syrup, and eggs.

ANSWER: Republic of **Peru** [or Republica del **Peru**]

[10] Another popular soft drink in Peru and neighboring countries is *this* drink made from corn and mixed with pineapple. A variation of this horchata-like drink in Venezuela is made with boiled rice, condensed milk, and sugar.

ANSWER: **chicha** <ZF>

6. In his biography of its artist, Anthony Blunt named this painting and its counterpart as possible examples of its artist's theory of the Dorian "mode" in painting. For 10 points each:

[10] Name this 1648 landscape whose terraced background depicts shepherds and classical buildings. In its foreground, two men in reddish clothes carry a bier that's obscured by the folds of a large white cloth.

ANSWER: *The **Burial of Phocion*** [or *Landscape with the **Funeral of Phocion***; accept ***Landscape with the Body of Phocion** Carried out of Athens*]

[10] This classicizing French artist of *The Burial of Phocion* depicted a woman placing her hand on one of the three shepherds who inspects the inscription on a tomb in 1638's *Et in Arcadia Ego*.

ANSWER: Nicolas **Poussin** [poo-SAA]

[10] One version of *The Burial of Phocion* is housed in Philip Johnson's Glass House in *this* New England state. Louis Kahn designed an art gallery for a university in this state, where alum Eero Saarinen designed Ingalls Rink.

ANSWER: **Connecticut** (That's the Yale University Art Gallery.) <MBo>

7. HLA-DM is necessary for these molecules to displace the CLIP portion of Ii ["one I"] that remains after the action of various cathepsins. For 10 points each:

[10] Name this general type of molecule that is transported into the endoplasmic reticulum by TAP.

ANSWER: **antigens** [or **antigenic** peptides; prompt on peptides or protein fragments]

[10] The presentation of antigens by MHC proteins is necessary for the production of these Y-shaped molecules, which can then recognize them and trigger an immune response.

ANSWER: **antibodies** [or **immunoglobulins**]

[10] A useful mnemonic for remembering which of two co-receptors a T-cell needs in order to bind to an antigen-presenting cell is that the class of the MHC, multiplied by the CD number it requires, equals this number.

ANSWER: **eight** (class I needs CD8, while class II needs CD4) <KW>

8. In this series's first piece, a woman plays five-finger fillet and grabs a larger knife each time she stabs herself. For 10 points each:

[10] Name this series of numbered performances. For its entry number "0," the performer placed objects like a scalpel and a loaded gun on a table, stood still, and let the audience do whatever they wanted to her for six hours.

ANSWER: ***Rhythm***

[10] The *Rhythm* series was devised by *this* Serbian performance artist. In 2005, this woman performed works by Vito Acconci and Bruce Nauman live at the Guggenheim for her performance *Seven Easy Pieces*.

ANSWER: Marina **Abramović**

[10] In 2010, Abramović sat stationary for a combined 736 hours in *this* New York City museum. Matisse's *The Dance* and Picasso's *Les Femmes d'Alger* are housed in this museum which, unlike the Met, is in Midtown.

ANSWER: **MoMA** [or **Museum of Modern Art**] <ES>

9. This man's poems are collected in *The Darkening Ecliptic*, though they originally appeared in full in Max Harris's modernist magazine *Angry Penguins*. For 10 points each:

[10] Name this poet. Perhaps his most famous poem closes by saying "I am still / The black swan of trespass on alien waters" after noting that "Durer perceived" the same "quiet reflecting waters" that the narrator does.

ANSWER: Ern **Malley** [accept James (Phillip) **McAuley**; accept Harold (Frederick) **Stewart**]

[10] James MacPherson perpetrated another poetic hoax by claiming to have discovered the epic *Fingal*, which he said was written by this Irish mythical figure, but which MacPherson in fact wrote.

ANSWER: **Ossian** [or **Oisín**]

[10] Araki Yasusada, a survivor of this event, is believed to be a creation of the writer Kent Johnson. One of the Yasusada poems describes a "girl with blistered face" suffering in the aftermath of this event, which preceded a similar event in Nagasaki.

ANSWER: atomic **bombing** of **Hiroshima** [prompt on atomic bombing] <EA>

10. Zeus's plan to disguise this woman as a cow backfired when Hera asked for the cow as a gift. For 10 points each:

[10] Name this woman who was pursued across the world by a gadfly sent by Hera after escaping with the help of Hermes. The Bosphorus legendarily gained its name, meaning "ox passage," when this woman crossed it.

ANSWER: **Io**

[10] The watchman Argus Panoptes was assigned by Hera to guard Io and had a body covered in these things, according to Ovid. After he died, Hera put onto these things onto the tail of the peacock.

ANSWER: **eyes** [or **eyeballs**]

[10] Io eventually settled in this place, where she became the ancestor of the Danaids [dah-NAY-ids]. The Danaids fled from this place to Argos in an attempt to avoid marrying their cousins, whom they later killed.

ANSWER: **Egypt** <JMA>

11. Theoderic the Great built this city's St Andrew of the Goths Cathedral. For 10 points each:

[10] Name this capital of the Kingdom of the Ostrogoths until it was conquered by the Byzantines in 540 CE. The wife of Theodosius I, Galla Placidia, was buried at a mosaic monument in this last capital of the Roman Empire.

ANSWER: **Ravenna**

[10] The Kingdom of the Ostrogoths gained prominence after its ruler, Odoacer, performed one of these actions in 476. Another of these events had happened at the hands of Alaric's Visigoths in 410.

ANSWER: **sacks of Rome** [accept equivalents indicating Rome being caused to fall]

[10] Odoacer not only dealt with the last Western Roman Emperor Romulus Augustulus, but also this *de jure* Emperor who lived in Salona until 480 CE. Jordanes claims this emperor had no legitimacy to rule and was merely a false flag Byzantine sent by Leo I of the Eastern Empire.

ANSWER: Flavius **Julius Nepos** Augustus <ZF>

12. After he fled to the United States, this researcher's work underwent a "straight turn" as he calculated that American audiences would be less receptive to positive messages about homosexuality. For 10 points each:

[10] The 1933 destruction of an archive named for this founder of the Institute for Sexual Research and teacher of Harry Benjamin represented a massive setback for the nascent field of LGBT studies.

ANSWER: Magnus **Hirschfeld**

[10] Hirschfeld and Benjamin both initially worked in this European capital, where Hirschfeld's institute operated during the Weimar Period.

ANSWER: **Berlin**

[10] In addition to destroying Hirschfeld's institute, Nazi Germany imprisoned gay men in concentration camps, where *this* symbol was used to identify them. Lesbians and trans men were assigned a black variant of this symbol as "asocials".

ANSWER: **pink triangle** [accept **rosa Dreieck**, prompt on partial answer] <JM>

13. For two masses and three identical springs, the frequency corresponding to the slower of these solutions is the square root of  $3k$  over  $m$ . For 10 points each:

[10] Identify these patterns of motion, in which all coupled oscillators in a system oscillate at the same frequency.

ANSWER: **normal modes** [prompt on modes]

[10] Normal modes appear in the analysis of coupled systems that exhibit this sort of motion, in which the restoring force is linear in the displacement. Springs exhibit this sort of motion.

ANSWER: simple **harmonic** motion [or simple **harmonic** oscillation; prompt on oscillation]

[10] In terms of a mass matrix  $M$ , a spring constant matrix  $K$ , and angular frequency  $\omega$ , *this* expression is set to zero to solve for  $\omega$  when solving normal mode problems, since if this expression *doesn't* equal zero, the only solution is no motion at all. This expression is obtained by plugging in the exponential ansatz into Hooke's Law. You have 10 seconds.

ANSWER: the **determinant of  $K$  minus  $(\omega^2 M)$**  [or **determinant of  $(K - \omega^2 M)$** ] <VD>

14. The protagonist of a novel by this author is forced to marry Fatima, his epileptic cousin. For 10 points each:  
[10] Identify this Moroccan novelist who described the upbringing of Zahra as a boy named Ahmed in his novel *The Sand Child*.

ANSWER: Tahar **Ben Jelloun** [accept al-Tāhir **bin Jilūn**]

[10] Ben Jelloun writes in this language that he shares with other Prix Goncourt winners like Amin Maalouf and Patrick Modiano.

ANSWER: **French** [accept **Français**]

[10] A fictionalized version of this author named “The Blind Troubadour” serves as a storyteller within *The Sand Child*. In another story, a character named after this author becomes obsessed with the title coin, “The Zahir.”

ANSWER: Jorge Luis **Borges** <ES>

15. This work was once thought to have been written for Archduke Rudolf due to its relatively easy piano part. For 10 points each:

[10] Name this orchestral work by Ludwig van Beethoven, his only concerto for more than one soloist.

ANSWER: **Triple Concerto** [accept descriptions of a **concerto** for **piano, violin and cello**]

[10] Like the *Triple Concerto*, this E-flat-major Beethoven symphony was dedicated to Prince Lobkowitz after its composer rescinded its planned dedication to Napoleon.

ANSWER: **Eroica Symphony** [accept any answers indicating his **third** symphony or Symphony No. **3**]

[10] A later work dedicated to Lobkowitz is *this* song cycle, often thought to be the very first work in the genre. Its first song, “Auf dem Hügel sitz ich spähend,” [owf daym HEW-gull zits eekh SHPAY-unt] returns at the end of the final song, “Nimm sie hin denn, diese Lieder” [nimm zee HIN denn, DEE-zuh LEE-duh].

ANSWER: **An die ferne Geliebte** [ahn dee “fair”-nuh guh-LEEP-tuh] [accept **To the Distant Beloved**] <CS>

16. These people invented symbols like the *segol* and the *dagesh*. For 10 points each:

[10] Give this conventional term for the group who devised the system of Tiberian pointing to produce the now-standard Hebrew text of the Old Testament. Their work is preserved in sources like the Leningrad Codex.

ANSWER: **Masoretes** [accept **Masoretic** text; or Ba’alei ha-**Masora**]

[10] Tiberian pointing adds *niqqudot*, which signify *these* linguistic features that are often absent in Hebrew and Arabic writing. Most prayerbooks print the name of God as four letters without *these* features.

ANSWER: **vowels**

[10] The Masoretic text includes notes in *this* language, which is also used for most of the *Kaddish* prayer. Jesus primarily spoke this language.

ANSWER: **Aramaic** [do not accept or prompt on “Arabic”] <JR>

17. The 6th century *Kushnameh* is thought to be the story of an Iranian prince marrying a princess from this kingdom. For 10 points each:

[10] Name this kingdom that ended a non-Chinese Era of the Three Kingdoms by annexing its neighbors, which included Baekje and Goguryo.

ANSWER: **Silla**

[10] At this battle, Silla and its Chinese allies repulsed a Japanese naval invasion to support its ally, Baekje. This battle marked the end of Japan’s military engagement on the Korean peninsula for centuries.

ANSWER: Battle of **Baekgang** River

[10] Silla ended the Three Kingdoms Period and unified Korea when it captured this capital of Goguryo, which would later become the capital of a modern state founded by Kim Il-Sung.

ANSWER: **Pyongyang** <JM>

18. Edward Thorndike conducted some of the first physiological research into the characteristics of these people. For 10 points each:

[10] Name this type of people. Thomas Bouchard's MISTRA study led to an oft-cited example about two of them named Jim.

ANSWER: **twins** [accept fraternal **twins**, identical **twins**, monozygotic **twins** or dizygotic **twins**; accept **twins raised separately** or equivalents; prompt on **siblings**]

[10] Matt McGue co-directs this university's namesake Twin Family Study. While at this university, Starke Hathaway designed a test with ten scales that measure levels of psych-asthenia and hypo-chon-driasis.

ANSWER: University of **Minnesota** (The test is the **Minnesota** Multiphasic Personality Inventory.)

[10] The Maudsley Study, an ongoing twin study at King's College London, investigates differences in cognition and other faculties in twins with and without this disorder. This disorder is characterized by sudden periods of mania followed by periods of depression.

ANSWER: **bipolar** disorder [or **bipolar** affective disorder; prompt on **manic-depressive** disorder] <WG>

19. Answer the following about the principles of green chemistry, for 10 points each.

[10] The ninth principle of green chemistry encourages the use of *these* substances, since they can be recycled. These substances accelerate a reaction by creating an alternate pathway with a lower activation energy.

ANSWER: **catalysts**

[10] In accordance with green chemistry's move towards less hazardous reactions, many reactions in the synthesis of *these* compounds are being performed with enzymes instead of metal catalysts. Small molecule libraries are screened to identify potential examples of these compounds, which is known as their discovery process.

ANSWER: **drugs** [or **medications**; accept **pharmaceuticals**; prompt on **medicines**]

[10] Drugs typically have a low value for *this* quantity, defined as the quotient of the mass of the *desired* products and the mass of all the reactants. This quantity shares its name with the second principle of green chemistry.

ANSWER: **atom economy** <RRP>

20. This novel's first chapter states, "Sing now, O muse, of the recessive mutation on my fifth chromosome," before continuing, "Sorry if I get a little Homeric at times. That's genetic, too." For 10 points each:

[10] Name this Jeffrey Eugenides novel about the intersex Greek-American Cal Stephanides. This novel contains a chapter titled "Tiresias in Love" and its protagonist performs in a burlesque show as Hermaphroditus.

ANSWER: **Middlesex**

[10] *Middlesex* draws heavily on symbolism from Greek mythology. A 2018 novel by Madeline Miller retells stories from Greek mythology from the point of view of this sorceress, who transforms men into pigs in *The Odyssey*.

ANSWER: **Circe**

[10] Another modern retelling of *The Odyssey* is this Charles Frazier novel set during the Civil War. The protagonist W. P. Inman deserts the war in order to journey back to his lover Ada Monroe.

ANSWER: **Cold Mountain** <JMA>

## **The 2020 WORKSHOP Team**

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