

FLopen 2020

Packet I: <https://imgur.com/a/VWaSRFf>

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Tossups

1. **After encountering a group of Babylonian missionaries, Uyghur khagan Boku Tekin became a member of this religious group. A rebellion of people belonging to this religious group was instigated when government official Chu Mein seized a grove of lacquer trees. Faustus of Mileve was a member of this religious group who feuded for years with a “hearer” who would go on to denounce it. During the Song Dynasty, (*) Fang La led a peasant’s revolt consisting mostly of members of this faith, who were referred to as “vegetarian demon worshipers” by court officials. The most notable one-time member of this non-Christian religion practiced it while living a hedonistic life in Carthage, as related in his *Confessions*. For 10 points, name this dualist gnostic religion founded in the 3rd century CE by a Persian prophet and practiced by St. Augustine before his conversion to Christianity.**

ANSWER: **Manichaeism** [accept **Manichaeist**; prompt on **gnosticism**]

<World History, TH>

2. **In patients with alcoholism or another serious illness, this process occurs due to osmolarity shifts after too rapidly treating hypo-natremia; that disease is CPM. Regions of NAWM (“N-A-W-M”) with reduced magnetization transfer ratio typically neighbor regions where this process is occurring. If there is evidence of this process, and dissemination in space is shown, then a patient should be diagnosed with its associated disease by the McDonald criteria. Deposits of anti-MAG antibodies are found in areas affected by this process, which is characteristic of a disease treated with glatiramer acetate. In their chronic stages, regions of this process appear as black holes on MRIs. Astrocytes build up a thick scar tissue after this process occurs. For 10 points, name this process that degrades a substance produced by oligo-dendro-cytes, characteristic of MS.**

ANSWER: **demyelination** [accept **myelinolysis**; accept answers indicating **damage** to the **myelin** sheath; prompt on **scarring**, **lesion** formation, **plaque** formation, **neuropathy**, or **neuronal loss** by asking “what is causing it?”] (CPM is central pontine myelinolysis.)

<Biology, JS>

3. *Two answers required.* **While these two characters discuss the false importance of death, Nature is personified as a “passionless spectator” who “would watch unmoved if we destroyed the entire human race.” One of these characters claims that the other would relinquish his love for the people in exchange for “a few days of health,” before comparing his environment to the “pink water of the womb.” One of these men sparks a chorus to repeat the word “copulation” before the other encounters a woman who had come to his door three times. During a scene titled (*) “Interruptus,” a musical history of a revolution is sung before one of these men mimics the other’s stabbing by a sleepy actress. The death of one of these men is the subject of a play directed by the other, who assigns patients to roles like “Charlotte Corday” while in Charenton Asylum. For 10 points, name these two Frenchmen who title a play by Peter Weiss.**

ANSWER: Jean-Paul **Marat** (“mah-RAH”) AND

Marquis de **Sade** (“sahd”) [or Donatien Alphonse **François**]

[accept **Marat/Sade**]

<Drama, TM>

4. In June 2020, the town of Florence, Oregon inaugurated a park commemorating an event involving one of these objects, whose broadcast featured the line “the blast blasted [a certain substance] beyond all believable bounds.” These objects are used to make muktuk during Nalukataq. A man sits on a rock beside the remnants of one of these objects on the poster of a 2014 film by Andrey (*) Zvyagintsev. The “Prince” operates a travelling circus whose only attraction is one of these objects in Béla Tarr’s film *Werckmeister Harmonies*. One of these non-bridge objects near Dundee in the Firth of Tay is the subject of an infamously bad poem by William McGonagall. These large objects, which can explode due to gas buildup, provide a source of nutrients for abyssal organisms after they sink. For 10 points, name these objects often yielded by the beaching phenomenon, the remains of blubbery cetaceans.

ANSWER: whale carcasses [or dead whales; or whale skeletons; or stuffed whales; or whale falls; accept narwhal carcasses; accept the Tay Whale; reject “dolphin carcasses” or “killer whale carcasses”] (The Zvyagintsev film is *Leviathan*.)

<Other Academic, AP>

5. A paper by Siegfried and Zimbalist argues that since a value described by this term is low for professional sports, new teams cause shrinkage of local economies. A paper by Rebelo *et al.* states that a value described by this word can be large if the zero lower bound on the nominal interest rate binds. The Samuelson–Hanson model for business cycles is alternatively named for the (*) accelerator and for this term. A “simple” value described by this term is equal to the reciprocal of the marginal propensity to save, while its “complex” type accounts for changes in government spending of net exports. A value described by this term is defined as the ratio of a change in equilibrium GDP to the change in investment. For 10 points, give this term from macroeconomics referring to a proportionality value that measures the change in an endogenous variable with respect to a change in an exogenous variable.

ANSWER: multiplier [accept multiplier effects; accept multiplier-accelerator model; accept fiscal multiplier]
<Social Science: Economics, TH>

6. The slave-owning Tennessee millionaire Ezra Buckley first suggests the creation of this place on the condition that the “work will make no pact with the impostor Jesus Christ.” A dead man found in a shop on the Tacuarembó River is discovered to be carrying a very dense metal cone, which is a totem of one of the gods of this place. Teams of convicts and students excavating dry riverbeds in this place discover objects undergoing a strange multiplicity called (*) *hronir*. Volume 11 of a series of reference books about this place was being studied by the mathematician Herbert Ashe at the time of his death. This world was invented by members of a secret society of idealists who propagate information about it through a series of shadowy encyclopedias. For 10 points, what imaginary world titles a Jorge Luis Borges story along with Uqbar and Orbis Tertius?

ANSWER: Tlön [accept “Tlön, Uqbar, Orbis Tertius”; prompt on Uqbar; reject “Orbis Tertius” alone]

<Short Fiction, TH>

7. Verse 78 of a text notes the paradoxical nature of this thing by describing it both as “soft and yielding” and as “hard and strong” for attacking. The sage Chen Tuan developed Liuhebafa (“I’YEW-hey-BAY-fah”), a spiritual martial art form whose distinctive motion led it to sometime be called a type of boxing named for this thing. A book by Alan Watts and Al Chung-Liang Huang purporting to present a philosophy of Taoism to fix the ills of the West is subtitled for the “way” of this thing. In chapter 8 of the *Tao Te Ching* discussing its (*) “placid and contented nature,” this stuff is praised for its nature of “occupying, without striving” and for being “peaceable [and] never rebuked.” For 10 points, name this substance, one of the four classical elements often used in spiritual metaphors about *wu wei* because of its flowing nature.

ANSWER: water [accept bodies of water; accept rivers, lakes, streams, or any other specific body of water; accept *Tao: The Watercourse Way*; accept Shuǐ quán; prompt on liquid]

<Religion, TH>

Note to moderators: please read the answerline carefully before reading the question.

8. **Description acceptable. A “shallow” approximation for modeling this process, which neglects the normal stress deviators and the shear stress in the vertical plane, predicts that its velocity is proportional to the fourth power of thickness. Perturbations in the velocity of this process known as seasonal waves or *Druckwellen* are longer-lived than similar “spring events”. Strain rate is proportional to the second power of the second principal invariant of the stress deviator tensor in Glen’s power law for this process. This process is sped up when temperature and mass gradients over bumps induce (*) regelation. Vertical profiles of this process have a short flat portion due to basal sliding. Crevasses (“kruh-VAS-ez”) are created from the tensional forces induced by this process. For 10 points, name this gravity-driven process that erodes underlying rock, producing beautiful landforms like arêtes and cirques.**

ANSWER: **glacial motion** [accept descriptions of **glaciers moving**; accept **glacial** internal **flow**; accept **basal sliding** until it is read; accept **glacial deformation**; accept description of **ice** or **ice sheets moving**; prompt on **glaciation**; anti-prompt on glacial **erosion** by asking “what process is causing erosion to occur?”; anti-prompt on **deformation** by asking “deformation is causing what other process?”] (The first line refers to the shallow ice approximation.)

<Other Science: Earth Science, JS>

9. **A woman injured by this play sent a manila envelope to the central participant containing a photo of her bruised thigh. That central participant in this play responded “my ass” and suited up after hearing the play-by-play commentator claim he would not appear in the game. This play ended a game whose scoring began with the AL MVP’s only hit of the series, a grand slam off Tim Belcher. This play was preceded by an uncharacteristic walk of eighth-hitter Michael Davis by (*) Dennis Eckersley and resulted in a memorable double fist pump as its central participant rounded second base in his only appearance in the series. For 10 points, name this play that concluded Game 1 of the 1988 World Series in which a Los Angeles Dodgers pinch hitter, down to the last strike, walked off the Oakland Athletics while suffering from two injured legs.**

ANSWER: Kirk **Gibson**’s **home run** in Game 1 of the 1988 World Series [prompt on partial answers that do not mention both Kirk **Gibson** and a **home run**]

<Pop Culture, GP>

10. **This movement’s practitioner Gerald Laing created a portrait in which a subject’s facial features are highlighted by a black circle. An artist from this movement included her motif of a blossoming rose in the painting *It’s a Man’s World* and showed a women’s bare bottom underneath a proscenium arch in her painting *Bum*. Pauline Boty belonged to this movement, which also produced an image of a hand holding a gun pointed toward a woman posing above a (*) warplane. A Lawrence Alloway essay coined the name for this movement, which included former Independent Group members Billy Apple and Eduardo Paolozzi. A work from this movement features a marquee advertising *The Jazz Singer* and a bodybuilder in a living room holding a sucker. For 10 points, Richard Hamilton was a British practitioner of what movement that derived images from advertising and mass culture?**

ANSWER: British **Pop** Art [prompt on **Independent Group** until mentioned] (The Laing work is *Brigitte Bardot*, and the work featuring the gun and the warplane is Eduardo Paolozzi’s *I Was a Rich Man’s Plaything*.)

<Painting/Sculpture, TH>

11. A ruler of this kingdom had Olivier de Mauny pretend to capture him to avoid going on a campaign. A ruler of this kingdom was barred from marrying his children to English princes in the Treaty of Briones (“bree-OH-nays”). Guillaume de Machaut (“gee-YOHM duh mah-SHO”) dedicated his poem *Comfort for a Friend* to a ruler of this kingdom. A ruler of this kingdom killed Guillaume Cale (“kahl”) at the Battle of (*) Mello. Another ruler of this kingdom was offered the French crown by Étienne Marcel during the Jacquerie. Charles the Noble and Charles the Bad ruled this kingdom, as did a ruler who led the Huguenots during the War of the Three Henrys. Upon assuming the French crown, that ruler of this kingdom converted to Catholicism, claiming “Paris is worth a mass.” For 10 points, name this kingdom that united with France under the Bourbon king Henry the Great.

ANSWER: Kingdom of Navarre
<Post-500 European History, GP>

12. In a bitter sonnet by Weldon Kees, the speaker states “These speculations sour in the sun” before declaring “I have no [one of these people]. I desire none.” A poem titled for one of these people concludes by noting “Ceremony’s a name for the rich horn, / And custom for the spreading laurel tree” after a discussion of Helen who “had much trouble from a fool.” “Gregory’s wood and one bare hill” protect a sleeping one of these people from a “roof-levelling wind, / Bred on the Atlantic” in a “prayer” by W. B. Yeats. Another poem titled for one of these people describes “The lazy (*) geese, like a snow cloud [...] who cry in goose, Alas” for the deceased title character, who is “Lying so primly propped” in a “brown study.” The line “There was such speed in her little body” opens a John Crowe Ransom elegy about, for 10 points, a person with what sort of familial relation to John Whiteside?

ANSWER: (the poet or speaker’s) daughter [accept “For My Daughter”; accept “A Prayer for My Daughter”; accept “Bells for John Whiteside’s Daughter”; prompt on a kid, baby, or child of the poet or speaker]
<Poetry, TH>

Note to moderators: please read the answerline carefully before reading the question.

13. In a technique based on these phenomena, differential probes reduce wobble and lift-off effects, and the signal from those probes has a slanted figure-eight shape. In that technique, the phase lag computed from the standard depth of penetration of these phenomena is used to determine the depth of subsurface defects. In a non-destructive materials testing technique, signals measured from the effect of these phenomena are shown on impedance plane plots. Using a core made of thin laminations rather than a solid core reduces the (*) loss due to these phenomena in transformers. The jumping ring classroom demo is explained by analyzing these phenomena with Lenz’s law. These phenomena cause an aluminum pendulum to slow down when passing through a horseshoe magnet. For 10 points, name these loops of current induced in a conductor by a changing magnetic field.

ANSWER: eddy currents [accept eddy current testing; accept eddy or eddies after “current” is read; accept loops of current or current loops before “loops”; prompt on eddy or eddies before “current” is read; prompt on currents]
<Physics, LM>

14. A film set in this region opens with green-tinted shots of a cat walking across a roof intercut with shots of an old woman screaming on a balcony. The refugee Georg assumes the identity of the dead author Weidel and attempts to take a ship from this region to flee a modern day fascist regime in Christian Petzold's film *Transit*. A thriller set in this region climaxes with a Cary Grant-played character foiling a robbery on the rooftops above a masked ball. Alfred Hitchcock's (*) *To Catch a Thief* is set in this region. Ferdinand paints his face blue and blows himself up with dynamite in this region in the last scene of *Pierrot le Fou*. *I, Daniel Blake* and *Shoplifters* are recent winners of a prestigious film award from a festival held in this region, the Palme d'Or. For 10 points, name this coastal European region where the Cannes Film Festival takes place.

ANSWER: French Riviera [or Côte d'Azur; accept the Mediterranean coast of France; accept Southern France or South France; prompt on France by asking "what general region within France?"; prompt on the Mediterranean coast by asking "what country within the Mediterranean region?"; anti-prompt on Cannes until it is read by asking "Cannes is in what larger region?"]

<Other Arts: Film, TH>

15. The 2017 London Revival of this musical begins with an electric guitar melody over footage of Yellow Vest protests before a group of onstage protestors in black hoodies clash with riot police. In the first number of this musical's second act, a chorus of revelers sing "Look at all my trials and tribulations / Sinking in a gentle pool of wine." Mike d'Abo of Manfred Mann first sang a vaudeville-inspired song from this musical, which includes the punning line "I'm sure that you can (*) rock the cynics if you try." Toward the end of this musical, a repetitive guitar riff plays each time a man shouts a number as he counts up to 39. The only female character in this musical anoints the title character with oil during the song "Everything's Alright" and later sings "I Don't Know How to Love Him." For 10 points, name this Tim Rice and Andrew Lloyd Webber rock musical about the Messiah.

ANSWER: Jesus Christ Superstar

<Other Arts: Auditory, TH>

16. The protagonist of this novel remembers his childhood fear of the Mask of Memnon while approaching a massive man breakfasting on a balcony. An antique lantern and a new car are contrasted during a scene in this novel in which a group is cornered at a pier by masked horsemen. After jokingly ordering Lobster Milanese at a dive bar, a man in this novel is surprised when he actually receives it before he is lowered into an underground room full of (*) bombs. In this novel, a group of men pursue a man who escapes by car, elephant, and hot air balloon before arriving at a bizarre ball themed after the Creation from Genesis. In this novel, it is revealed that six members of a group of radicals are actually undercover Scotland Yard detectives. For 10 points, name this G. K. Chesterton novel focused on a supposed council of anarchists named after the days of the week.

ANSWER: The Man Who Was Thursday

<Long Fiction, TH>

17. Rory McTurk argued that this individual's "inverted pilgrimage" demonstrated "contrastive association," and was actually highly successful, against typical interpretations. A man juggling seven knives falls under the "deceptive appearances" that were prepared for this man's arrival. In a gift-gone-wrong, this man loses vast tracts of land after allowing a vagrant woman to plow with four huge oxen, creating Lake Malar and the island of Zealand. A frame narrative composed of this man's many (*) questions allowed its author to circumvent accusations of heathen beliefs while writing "instruction manual" on skaldic poetry. A trio of rulers named High, Just-as-High, and Third explain various Norse myths to this figure to open a collection by Snorri Sturluson. For 10 points, name this Swedish king whose "tricking," or -ginning, names the first book of the Prose Edda.

ANSWER: Gylfi [or Gylfe; or Gylvi; or Gylve; accept Gangleri; accept Gylfaginning]

<Mythology, TM>

18. Katherine Hall theorized that Plutarch's account of this object's unusual longevity may be explained by *C. jejuni* bacteria. In 2019, Calliope Limneos-Papakosta uncovered a marble hand after 14 years of searching for this object, whose location was smugly questioned in a homily by John Chrysostom. Cassius Dio and Suetonius disagree over whether the emperor Augustus broke a piece off of this object or placed a (*) diadem upon it. During his self-immolation, the gymnosophist Calanus was said to have prophesied an event that would bring about this object. While en route to Aegae, this object was captured by Ptolemy I, triggering the first war of the Diadochi. Despite its name, a sarcophagus that depicts the Battle of Issus does not contain this object. For 10 points, name this object that resulted from a probable case of typhoid in Babylon, leading to the death of a conqueror at age 32.

ANSWER: the lifeless **body** of **Alexander** the Great [accept the **body** of **Alexander** III of Macedon; accept **corpse** or **remains** or **skeleton** in place of body; prompt on the **tomb**, **grave**, **deathbed**, or final **resting place** of **Alexander** the Great by asking "what object would be found in that place?"]

<Ancient History, LM>

19. A cello concerto by this composer featuring a quadruple stopped C-major chord following a descending scale in the orchestra is often used as an audition piece. Late in his career, this composer wrote five concertos for the *lire organizzate*, a type of hurdy gurdy filled with organ bellows. This composer wrote four violin concertos and two cello concertos, including a long one in D major for Antonin Kraft. This composer's primary patron commissioned his two concertos for the (*) baryton. This composer innovated with orchestration by adding four horns to his early symphonies, including one nicknamed "Hornsignal." A set of six quartets by this composer dedicated to the future Tsar Paul are called his Russian Quartets, while he is the (emphasize) *dedictee* of a group of quartets including "The Hunt" and "Dissonance." For 10 points, name this composer who worked in the Esterházy Court and wrote the "Surprise Symphony."

ANSWER: Franz Joseph **Haydn**

<Classical Music, TH>

20. The equation for small fluctuations of this field in Fourier space has the non-zero source term: negative one-half times the Fourier transform of the metric times the derivative of this field with respect to conformal time. Whether this field starts as almost constant or slowly settles down to a constant value distinguishes freezing and thawing models of it. A model of this field predicts that it transitions between a tracker solution and a new attractor solution at the onset of the matter-dominated era; that model addresses Paul Steinhardt's (*) cosmic coincidence problem. Unlike phantom energy, this field's ratio of pressure to energy density, or little w , ranges from zero to negative one. This time-varying field with negative pressure is an alternative to the cosmological constant. For 10 points, dark energy is modeled by what field whose name is Latin for "fifth element"?

ANSWER: **quintessence** [accept **k-essence**; accept **quintessential dark energy**; prompt on **Q**; prompt on **dark energy** with "what field is a mathematical model of dark energy?"] (The other four elements being baryons, leptons, photons, and dark matter)

<Other Science: Astronomy, TH>

21. A book by Jean-François Kervégan that takes its title from a confounding phrase in this book explains it to mean that public institutions fulfill subjective individual needs. The censorship of Jakob Fries following his academic dismissal is celebrated in this book, which introduces its thinker's concept of *Wirklichkeit*, or actuality. The first section of this book argues that property is conventional rather than natural and states that (*) possession relates objects to the individual while property relates the individual to society. A contentious translation of a passage in this book reading "the state is the march of God through the world" inspired Giovanni Gentile's *Doctrine of Fascism*. This book discusses the relationship between the spheres of morality, ethical life, and the "abstract" type of the title concept. For 10 points, name this book by Hegel dealing with law, politics, and ethics. ANSWER: *Elements of the Philosophy of Right* [or *Grundlinien der Philosophie des Rechts*] <Philosophy, TH>

22. David Agresta and Caroline Latham's history of this family recounts an incident in which one of its members urinated on Wallis Simpson in West Palm Beach. This family owned Triple Crown winners Sword Dancer and Cavalcade, who lived at their Brookmeade Stable. This family's assets were repossessed in 1970 when the daughter of one of their patriarchs failed to pay off a mortgage for Meadow Brook Hall. This family won a lawsuit famous for upholding the principle of (*) "shareholder primacy"; in that case ALAM lost a patent. The patriarchs of this family first came to prominence by building gearboxes for a company owned by Ransom Olds. This family owned ten percent of the Ford Motor Company before splitting off to found a factory in Hamtramck. For 10 points, John Francis and Horace Elgin were the patriarchs of what Michigan automotive dynasty that manufactured the Model 30? ANSWER: Dodge family [accept John Francis Dodge; accept Horace Elgin Dodge] <US History, JZ>

Bonuses

1. In archaea, the initiator protein Orc1/Cdc6 is believed to both recognize replication origins and load an enzyme homologous to this complex. For 10 points each:

[h] Name this complex that is activated by Cdc 45 and the GINS complex. First identified in *S. cerevisiae*, this complex's six unique and essential proteins, labeled two through seven, all contain AAA+ ("triple A plus") domains.

ANSWER: **Mcm2-7** complex [or **minichromosome maintenance** complex]

[e] The Mcm complex is this type of enzyme that unwinds DNA to form the replication fork.

ANSWER: **helicases**

[m] PCNA, one of these complexes in eukaryotes and archaea, is a trimer that possesses quasi-sixfold symmetry just like its bacterial counterpart. These complexes tether polymerases to DNA to increase processivity.

ANSWER: sliding **clamps** [accept DNA **clamp**; accept beta-**clamp**]

<Biology, JS>

2. For the final twenty years of his life, Joseph Stalin used one of these places as his main residence. For 10 points each:

[m] Name these Russian second-homes. During the Soviet era, they were restricted to around 600 square feet and a single story.

ANSWER: **dachas**

[e] The first dachas can be traced to the construction of this one-time Russian capital in the 18th century. This city on the Neva River is named for a czar.

ANSWER: **Saint Petersburg** [or **Petrograd**; or **Leningrad**]

[h] Ethan Pollock wrote a recent cultural history of these other staples of Russian life, which feature a wooden steam room called a parilka. During Napoleon's invasion of Russia, he was depicted in one of these places declaring, "I've never withstood such torture in my life!" Give the Russian term.

ANSWER: **banyas** [prompt on **saunas**]

<Geography, MB>

3. This painter showed the title fruits and vegetables arcing across a window sill against a stark black background in his *Still Life with Quince, Cabbage, Melon, and Cucumber*. For 10 points each:

[h] Name this Spanish Golden Age painter of *bodegones* still lifes. He only left six extant paintings before giving up art to become a Carthusian monk.

ANSWER: Juan **Sánchez Cotán** [accept either underlined part]

[e] Sánchez Cotán was born in this Castilian city of which El Greco painted a famous "View."

ANSWER: **Toledo**

[m] The contrast of dark, void-like backgrounds with colorful fruits in Sánchez Cotán's still lifes have been cited as examples of this one-word, Latin-named motif. This motif, which is not memento mori, seeks to remind the viewer of the imminence of death by juxtaposing objects of pleasure, like instruments or food, with objects like candles or skulls.

ANSWER: **vanitas** motif

<Painting/Sculpture, TH>

4. During the early 1920s, Alhassan Dantata became fabulously wealthy by dominating the market surrounding this good, which was stored in sacks arranged in gargantuan outdoor pyramids at Kofar Nassarawa. For 10 points each:
[h] Name this good whose trade brought great wealth to Kano. An effort led by John Strachey used precarious tank-bulldozer hybrids called “shervicks” to produce this good, which, due to drought, a flood, and hordes of angry bees, predictably ended in failure.

ANSWER: **groundnuts** [accept **peanuts**; prompt on **nuts**]

[e] Unlike the broken dreams of the Tanganyika groundnut scheme, the Kano groundnut trade brought fat stacks to this modern African country, which was colonized by Great Britain following their annexation of Lagos.

ANSWER: **Nigeria**

[m] By 1930, these two countries’ groundnut industries had replaced slavery with “strange farmers,” or seasonal migrant workers. In the 1980s, Abdou Diouf (“joof”) led a confederation of these two West African countries after a failed coup against Dawda Jawara. Name both.

ANSWER: **Senegal** AND

The **Gambia**

[accept **Senegambia**; accept **Senegambia** Confederation]

<Other History, GP>

5. A Tokyo student takes a train trip to the Izu Peninsula where he encounters a troupe of performers in this author’s novella *The Dancing Girl at Izu*. For 10 points each:

[e] Name this Japanese author whose fascination with the modernity of train travel is illustrated by the opening scene of his novel *Snow Country*.

ANSWER: Yasunari **Kawabata**

[m] In this 1904 Natsume Soseki novel, the title character takes a long train journey to Shikiku, where he works as a math teacher alongside characters he nicknames Red Shirt, Squash, and Porcupine.

ANSWER: **Botchan**

[h] The child protagonist Giovanni finds himself swept up among the stars on a space train in this Japanese author’s classic fantasy novel *Night on the Galactic Railroad*. This author’s immensely popular works for children include *Gauche the Cellist* and *The Night of Taneyamagahara* (“TAH-nee-ya-ma-ga-ha-ra”)

ANSWER: Kenji **Miyazawa**

<TH, Long Fiction>

6. These types of protests erupted in the Plaza de Mayo after Argentine president Fernando de la Rúa declared a state of siege against Peronist protestors in 2001. For 10 points each:

[h] Give the Spanish word these protests, common in Latin America, that feature lots of banging on pots and pans.

ANSWER: **cacerolazos** (“kah-ser-oh-LAH-sohs”) [or **caceroladas**; prompt on **casseroles**]

[m] In 1992, a large cacerolazo took place during the presidency of Carlos Andrés Pérez, and in the same year two coup attempts were made against Pérez, with the first being carried out by this leader’s MBR-200. This leader’s short television address after surrendering to the government was remembered for its phrase “por ahora”.

ANSWER: Hugo **Chávez**

[e] The March of the Empty Pots and Pans protested the policies of this socialist president of Chile overthrown by Pinochet.

ANSWER: Salvador **Allende** [or Salvador Guillermo **Allende** Gossens]

<World History, GP>

7. This thinker asserted that mountains are the same height as marshes in a series of statements meant to demonstrate the semantic relationship between words and things. For 10 points each:

[h] Name this logician and philosopher who proposed a set of ten cryptic paradoxes or “theses.” This thinker appears as an interlocutor in the *Zhuangzi*.

ANSWER: **Hui Shi** [or **Huizi** or Master **Hui**]

[e] Huizi’s ten theses have been compared to the three paradoxes of motion attributed to this Eleatic school philosopher.

ANSWER: **Zeno** of Elea [accept **Zeno**’s paradoxes]

[m] An oft-debated paradox of language from Ancient Chinese thought is a statement attributed to Gongsun Longzi claiming that one of these specific things is not a horse.

ANSWER: a **white horse** [accept **báimǎ**; reject “horse” alone]

<Philosophy, TH>

8. This composer used compositional techniques inspired by medieval composers like Guillaume de Machaut (“gee-YOHN duh mah-SHO”) in her piece *Miroirs des temps* (“meer-WAHR day tom”). For 10 points each:

[h] Name this German-Korean composer known for her live electronics pieces like *Double Bind* and for her 2007 opera based on *Alice in Wonderland*.

ANSWER: Unsuk **Chin**

[e] Chin’s use of droning electronic textures has led to comparisons between her music and that of Kaija (“KAH-yuh”) Saariaho, a composer from this home country of Jean Sibelius.

ANSWER: **Finland** [or **Suomi**]

[m] This other female composer invented instruments like the tape-bow violin and a six foot long MIDI controller called the talking stick. Her best known song, based on a Massenet aria, appeared on her album *Big Science*.

ANSWER: Laurie **Anderson** [or Laura Phillips **Anderson**]

<Classical Music, TH>

9. This theologian argued that “there is not in the world a kind of life more sweet and delightful, than that of a continual conversation with God.” For 10 points each:

[h] Name this 17th-century Carmelite friar whose compilation of letters and teachings about experiencing God’s presence formed *The Practice of the Presence of God*.

ANSWER: Brother **Lawrence** of the Resurrection [accept Nicolas **Herman**]

[e] An oft-cited Old Testament verse on God’s presence in people’s daily lives, “the Lord your God is with you wherever you go,” is from this sixth book of the Old Testament, named after Moses’s successor.

ANSWER: Book of **Joshua** [or Sefer **Yehoshua**]

[m] Another passage often cited regarding God’s eternal presence on Earth is one in this chapter that states “the Word became flesh and dwelt among us.” The first verse of this Biblical chapter uses the Greek word *logos* three times.

ANSWER: **John 1** (“one”) [accept the **first** chapter of the Gospel of **John** or the Gospel according to **John**]

<Religion, ND>

10. Actors attempting to transcribe plays from memory led to so-called “bad” works in one of these two formats, whose pervasiveness partly inspired the creation of a 1623 collection in the other of these formats. For 10 points each:

[m] Name these two printing formats, distinguished by folding a full-size paper once or twice, respectively. One of these two formats names the aforementioned “First” collection of 36 plays that had previously only been printed in the other format.

ANSWER: **quartos** [accept bad **quartos**] AND
folios [accept the First **Folio**]

[e] Repeated printings have led to many “cruxes,” or enigmatic passages, in Shakespeare’s work. Laertes compares himself to either the “kind life-rend’ring” “politician,” or “pelican,” in seeking vengeance for the death of his father Polonius in this Shakespeare play.

ANSWER: **Hamlet**

[h] In a crux from Act III, Hamlet oddly compares his mother to “the famous [one of these animals],” who, in a lost story, broke his neck while attempting to imitate some birds. In quarto 1, Hamlet later states that Claudius keeps officers in the corner of his jaw “as [one of these animals] doth nuttes.”

ANSWER: **ape** [accept “the famous **ape**”]
<Drama, TM>

11. Answer the following about potential flow, for 10 points each:

[e] Potential flow assumes that the velocity field is the gradient of some potential, and thus the curl of the velocity field equals this number. The divergence of the velocity field equals this number for incompressible flows.

ANSWER: **zero**

[h] In 2D potential flow analysis, any velocity field given by the curl of this scalar field automatically satisfies the continuity equation. This scalar field can be interpreted as the imaginary part of the complex velocity potential.

ANSWER: **stream** function [or Lagrange **stream** function; prompt on **psi**; reject “streamline”]

[m] Analysis of incompressible, inviscid potential flow around a cylinder transverse to the flow implies that this quantity is zero due to a symmetric pressure distribution around the cylinder. Prandtl first posited the boundary layer to resolve that result about this quantity derived by d’Alembert (“dah-lahm-BAYR”).

ANSWER: **drag** force [prompt on **D**]
<Physics, AP>

12. The “prison faction” of the Romanian Communist Party opposed another faction named after this city, where a leading member worked for the Comintern during World War II. For 10 points each:

[e] Name this city. Members of the Communist Party of the Soviet Union influenced politics in the Eastern Bloc from this city’s Kremlin.

ANSWER: **Moscow** [or **Moskva**]

[h] This leader headed the Muscovite faction and served as foreign minister of the Romanian Communist Party, becoming the first woman and Jewish person to hold such a post. Stalin’s death spared this leader of an anti-Semitic show trial in 1953.

ANSWER: Ana **Pauker** [or Hannah **Rabinsohn**]

[m] After purging Ana Pauker and the Muscovite faction, this politician led Romania until his death, whereupon his protégé Nicolae Ceaușescu assumed power.

ANSWER: Gheorghe **Gheorghiu-Dej** [prompt on partial last name]
<Post-500 European History, GP>

13. South African scholar Johan Steyn gave a 2002 Oxford lecture titled for the “Case For” this institution. For 10 points each:

[m] Name this institution headed by Robert Reed and created as part of the Constitution Reform Act of 2005. Its most controversial decision was arguably one concerning prorogation in 2019.

ANSWER: **Supreme Court** of the **United Kingdom** [or **UKSC**; or **SCOTUK**; prompt on the **Supreme Court** by asking “of what country?”]

[e] The UK Supreme Court was separated from this legislative body in 2009. Under the Blair government, members of this legislative body could no longer inherit their seats and reduced membership to 669 members.

ANSWER: House of **Lords** [or House of **Peers**; prompt on **Parliament**]

[h] In 2017, the UK Supreme Court ruled against Jon Platt for violating the U.K. equivalent of this type of crime. On the presidential campaign trail, Kamala Harris apologized for prosecuting adults for abetting this type of crime while serving as California’s Attorney General.

ANSWER: **truancy** [accept equivalents like **skipping school**]

<Current Events, MB>

14. The immigrants Gorgo and Praxinoa gossip about Queen Arsinoe at the Festival of Adonis in the fifteenth of a series of poems by this author. For 10 points each:

[m] Name this Ancient Greek lyric poet from Syracuse best known for his series of bucolic *Idylls*. The first of the *Sonnets from the Portuguese* mentions how this poet “sung of the sweet years.”

ANSWER: **Theocritus** of Syracuse

[e] Theocritus’s pastoral poetry was a major influence on this Roman poet who wrote the *Eclogues* and *The Aeneid*.

ANSWER: **Virgil** [or Publius **Vergilius** Maro]

[h] The twenty-second of Theocritus’s *Idylls* describes Polydeuces and Amycus engaging in this activity. Dares engages in this activity while using the *cesti* in Book 5 of *The Aeneid*.

ANSWER: **boxing** [prompt on **fighting** or **combat**]

<Poetry, TH>

15. A book titled for this theory claims that “legitimate peripheral participation leads” to integrated “communities of practice” exemplified by a group of Yucatán midwives. For 10 points each:

[h] Name this idea that titles a 1991 book by social anthropologist Jean Lave and computer scientist Étienne Wenger. That book advocates for the revival of apprenticeships and greater use of on the job training, key tenants of this pedagogical theory.

ANSWER: **situated learning** theory [accept **Situated Learning: Legitimate Peripheral Participation**; prompt on social **learning**]

[m] Jean Lave built on the work of this developmental psychologist who theorized about a gulf between what a learner can do on their own and what they can do with help, an idea he called the “zone of proximal development.”

ANSWER: Lev **Vygotsky** [or Lev Semyonovich **Vygotsky**]

[e] The final apprenticeship case study in Lave and Wenger’s book on situated learning examines individuals who belong to this organization. Members of this organization are encouraged to embrace a “higher power” as one of its Twelve Steps toward sobriety.

ANSWER: **A**lcoholics **A**nonymous [accept **N**arcotics **A**nonymous]

<Social Science: Psychology, TH>

16. This book contrasts Lacan's formulation of the paternal Symbolic order with that of Luce ("loos") Irigaray, who claims that the women are completely excluded from a phallogocentric dialectical discourse. For 10 points each:
[m] Name this 1990 book that discusses the case of Herculine Barbin. Monique Wittig's thought on the relationship between language and lesbianism influenced its section "Subversive Bodily Acts."

ANSWER: **Gender Trouble**

[e] *Gender Trouble* was written by this scholar widely credited for popularizing the idea that gender is performative.

ANSWER: Judith **Butler** [or Judith Pamela **Butler**]

[h] In its discussion as gender as a role, *Gender Trouble* cites this British psychoanalyst's paper "Womanliness as a Masquerade," which states that women transform aggression and fear of reprisal into seduction and flirtation to cope with phallogocentric discourse.

ANSWER: Joan **Riviere**

<Social Science: Other, TH>

17. Ella Fitzgerald's version of this standard includes the oft-omitted first verse, which describes a "slightly dopey gent" with a "vacant brow" and "tousled hair." For 10 points each:

[m] Name this standard, the standout song from the Rodgers and Hart musical *Babes in Arms*. This hit for Frank Sinatra asks its addressee if their "figure is less than Greek."

ANSWER: "**My Funny Valentine**"

[e] During his time with the piano-less Gerry Mulligan Quartet, "My Funny Valentine" became the signature song of Chet Baker, who played this instrument. This high brass instrument was also played by Dizzy Gillespie.

ANSWER: **trumpet**

[h] The last two bars of the A section of "My Funny Valentine" use these three numbered chords, a standard turnaround progression in jazz harmony. The standard "Satin Doll" unusually opens with these three chords, the first of which is rooted on the supertonic. Please give the Roman numeral values of the chords in order.

ANSWER: **ii-V-I** [or **two-five-one**; accept minor **two-five-one**; accept minor **two-seven, five-seven, one-seven**; accept diminished **two-seven, five-seven, one-seven**]

<Other Arts: Auditory, TH>

18. An ion cluster that forms this class of cluster compounds, [Ge9]4- ("G-E-nine-four-minus"), takes on the form of a *nido* deltahedron with the shape of a monocapped square antiprism. For 10 points each:

[h] Name these compounds with potential applications in thermoelectric devices because they have high electrical conductivity and low thermal conductivity. The reaction of highly electronegative group 1 or 2 elements with weakly electronegative metals or metalloids forms these compounds.

ANSWER: **Zintl** compounds [accept **Zintl** anions; accept **Zintl** phases]

[e] Wade's rules can be used to define the structures of Zintl compounds, though they are more commonly applied to cage compounds containing this element. This element has atomic number five.

ANSWER: **boron** [or **B**]

[m] Another simple cage cluster compound is this flammable, homoatomic, 20 valence electron allotrope consisting of four atoms arranged in a tetrahedron. This allotrope changes color and forms an amorphous network when heated.

ANSWER: **white phosphorus** [accept **P4**; prompt on **phosphorus** or **P**]

<Chemistry, TH>

19. Hank Adams, a leader of this protest, drafted the Twenty Points, which include demands for an annual summit and the return of 110 million acres of land. For 10 points each:

[h] Name this caravan-based protest movement in which Native Rights activists traveled from San Francisco to Washington D.C. This event ended with a nine-day occupation of the Bureau of Indian Affairs building in D.C.

ANSWER: The **Trail of Broken Treaties** [accept **Pan American Native Quest for Justice**]

[e] The Trail of Broken Treaties protest was organized by this Native Rights organization, which originally focused on urban poverty, housing and police brutality. This group also organized the 1973 Wounded Knee occupation.

ANSWER: **American Indian Movement** [or **AIM**]

[m] AIM also organized the Longest Walk protest, which began with a ceremony at this location. Earlier events at this location led to a fire severely burning activist LaNada Means and the death of Richard Oakes's daughter in a fall.

ANSWER: **Alcatraz** Island [prompt on **San Francisco Bay**] (The fire and fall occurred during the 1969 occupation of Alcatraz.)

<US History, TH>

20. Peter Wuteh Vakunta collected vernacular oral poems in a pidgin spoken in this country in the collection *Majunga Tok*. For 10 points each:

[h] Name this home country of Ferdinand Oyono and Imbolo Mbue (“um-BWAY”), who wrote about the Jonga family's relationship with the Lehman Brothers executive Clark Edwards in her novel *Behold the Dreamers*.

ANSWER: **Cameroon** [or Republic of Cameroon; or République de **Cameroun**]

[e] Cameroonian author Mongo Beti wrote in this European language, also used by Alain Mabanckou and Aimé Césaire (“eh-MAY say-ZAIR”).

ANSWER: **French** [or **français**]

[m] Another Francophone African author, Camara Laye, wrote a colonial-era novel titled for the “radiance” of one of these people. A “shadow” one of these people titles a 2019 novel by Ethiopian novelist Maaza Mengiste.

ANSWER: a **king** [accept *The Radiance of the **King***; accept *Le Regard du **roi***; accept *The Shadow **King***]

<Other Lit, TH>

21. One of these structures, the Chand Baori, descends thirty meters into the ground. For 10 points each:

[m] Name these structures common in western India that have provided year-round groundwater for centuries. Examples of these structures include Agrasen Ki Baoli in New Delhi.

ANSWER: **stepwells** [or **stepped ponds**; prompt on **wells**; prompt on **baoris**]

[h] Stepwells were supposedly the inspiration for this much-criticized structure built by “starchitect” Thomas Heatherwick for New York's Hudson Yards. This structure has also been compared to a honeycomb.

ANSWER: **Vessel** [accept **Vessel** TKA; accept answers like “the structure temporarily known as **Vessel**”]

[e] A stepwell in Mahemdavad in Gujarat was noted for its particularly loud colony of these creatures. Bracken Cave near San Antonio features a 20-million-strong colony of these flying mammals.

ANSWER: **bats** [accept Mexican free-tailed **bats**]

<Geography, MB>

22. Answer the following about how robots get around, for 10 points each:

[e] Biomechanical motion control relies on calculating the ground reference points, which include the CMP where the reaction force keeps this quantity constant. Torque equals the time derivative of this vector quantity.

ANSWER: **angular momentum** [accept **spin angular momentum**]

[h] Robots use sensor data and extended Kalman filters to perform this task of determining their position and representing their environment. This task, which is often known by a four letter initialism, is difficult because the two tasks being performed at the same time represent a chicken-or-egg problem.

ANSWER: **SLAM** [or **simultaneous localization and mapping**; or **simultaneous localization and navigation**]

[m] In order to navigate in new environments, robots use these general components that take in feedback and determine appropriate actions. A popular one of these components uses proportional, integral, and derivative terms.

ANSWER: closed-loop **controller** [accept closed-loop **control** system; accept PID **controller**]

<Other Science: Engineering, TH>