**2021 National All-Star Academic Tournament**

**Round 12 – Tossups**

1. An emperor from this dynasty constructed their country's first performing arts academy, the Pear Garden. According to two chronicles known as the *Old* and *New Books of* [this dynasty], Peroz III fled and became one of this dynasty's generals. A ruler who interrupted this dynasty promulgated the Great Cloud Sutra, which predicted the return of the Maitreya Buddha. The Giant Wild Goose Pagoda was built during this dynasty and housed Buddhist scrolls that were brought back from India by Xuanzong **(SHUAN-zong)** for this dynasty's Emperor Taizong **(TIE-zong)**. The consort Yang Guifei was killed during a rebellion against this dynasty that was sparked by a Sogdian general. For 10 points, name this dynasty that faced the An Lushan Rebellion and was interrupted by Wu Zetian after succeeding the Sui.
ANSWER: **Tang** Dynasty
<History World - Hari Parameswaran>

2. In this piece's first movement, cellos play wide E major arpeggios underneath a swelling theme by strings and clarinet. That theme is introduced at this piece's start with brass playing the fortissimo notes "E, down to B, D [pause] C B C." This piece's finale depicts a ship smashing into a cliff surmounted by a bronze statue. This work's second movement is about a noble who becomes a Sufi mystic named The Kalendar Prince. Shahryar is represented in the opening statement of "The Sea and Sinbad's Ship" in this piece, whose finale depicts "The Festival at Baghdad." For 10 points, name this orchestral suite by Nikolai Rimsky-Korsakov that depicts stories told by the protagonist of *The 1,001 Nights*.
ANSWER: ***Scheherazade***
<Arts Music - Charles Dees>

3. A man in this play writes a message on a notepad after asking how a man can "talk against death" to a person wearing a "uniform of death." A woman in this play tells her husband, "I think you've shocked his big pagan heart" after a man knocks over a flower pot while watching a couple dancing. A man offends his servant in this play by calling holy water "nonsense." The protagonist of this play, who is called an "eater of leftovers," tells the Praise-Singer the story of the "Not-I" bird. The district officer Simon Pilkings is unable to stop a man from strangling himself with his chains after he sees his son's corpse in this play. For 10 points, name this play in which Olunde **(oh-LOON-day)** commits ritual suicide in place of his father Elesin, written by Wole **(WOH-lay)** Soyinka.
ANSWER: ***Death and the King's Horseman***
<Literature World / Classical / Misc - Caroline Mao>

**Note to Moderators: Please Read the Answerline Carefully.**

4. After this event, the tears produced by witnesses formed a river that flows into the Meander **(mee-and-er)** in Phrygia **(frij-ee-ah)**. After this event, a god repented by breaking a recent invention, leaving that object's rediscovery to Linus **(lie-nus)** and Orpheus **(or-fee-us)**. This event happened to a man who was ruled against by Tmolus **(tuh-moh-lus)**, but was supported by Midas **(my-dahs)**, who was given donkey's ears as a result. During this ordeal, the central figure was hanged from a pine tree after a divine opponent was able to play the lyre upside-down. For 10 points, name this punishment ordered by Apollo after he won a music contest against the flute player Marsyas **(Mar-see-ahs)**.
ANSWER: **flay**ing of **Marsyas** [accept synonyms for flaying such as **skinning** alive; or **removing his skin**; prompt on flaying or a synonym alone with “Who was being flayed?”; prompt on answers involving a music contest between Apollo and Marsyas by asking “what punishment happened after that contest?” accept **flaying** or its equivalent after “Marsyas”]
<RMP Greek/Roman Myth - Matt Weiner>

5. The canonical form of this quantity's operator is proportional to the gradient of the translation operator close to the origin. This quantity's operator generates the translation operators. The expectation of the derivative of the potential is related to the expectation of this quantity by the Ehrenfest theorem. The operator for this quantity is equal to negative i h-bar times del. The de Broglie **(duh BROY)** wavelength is equal to Planck's constant over this quantity, whose standard deviation times the standard deviation of position is always at least one-half h-bar, as it is the conjugate variable of position. For 10 points, name this quantity that can't be known simultaneously with the position, according to the Heisenberg uncertainty principle.
ANSWER: linear **momentum** [or canonical **momentum**; accept linear **momentum** operator; prompt on p; do not accept "angular momentum"]
<Science Physics - Steven Liu>

6. This figure secured his status as king after defeating the Sarmatian king Babai. After personally killing one rival, this ruler supposedly claimed that there "wasn't a bone" in that man's body. A mosaic of this ruler's palace in the church of Sant'Apollinare Nuovo constructed under his rule, is believed to have had figures of this ruler and his court erased under Byzantine rule. This patron of the historian Cassiodorus and philosopher Boethius built a decagon-shaped mausoleum for himself in his capital of Ravenna. According to Jordanes, this leader was named magister militum by Zeno to encourage him to invade Italy, which he took control of by murdering Odoacer at a banquet. For 10 points, name this Ostrogothic ruler known as "the Great."
ANSWER: **Theodoric** the Great [or **Theodoric** the Amal]
<History European to 1400 - Douglas Simons>

7. This molecule is often applied to samples that have been "paraffin-embedded.” This molecule is the typical reductant of silver ions in argyrophilic staining. 1 part 37% by weight stock solution of this molecule is diluted by 9 parts water and added to a hydrogen phosphate-based buffer to produce a so-called "10% neutral buffered" solution of this molecule. Through the nucleophilic attack of the epsilon-amino of lysine, this molecule forms crosslinks in proteins, making it useful in immunoprecipitation procedures and as a fixative. Methanol toxicity is a consequence of the fact alcohol dehydrogenase oxidizes methanol to this molecule. For 10 points, name this simplest aldehyde with formula CH2O, which is often used to preserve dead bodies.
ANSWER: **formaldehyde** [or **methanal**; or **formalin**; prompt on CH2O before it is read]
<Science Biochemistry - Geoffrey Chen>

8. Heartfree and Constant are pursued by the protagonist and Belinda in a play titled for one of these people that features the drunkard John Brute. The "virtuous gang" appear in a play titled for one of these people where Harcourt woos Alithea. A John Vanbrugh play is titled for a *Provoked* one of these people, another of whom titles a play in which Lady Fidget hears a series of double entendres when the allegedly-impotent Horner describes his plate collection. The "china scene" appears in a William Wycherley play titled for a *Country* one of these people. A play titled for these people, which was allegedly written after Elizabeth I wanted to see a certain knight in love, features Mistresses Page and Ford. For 10 points, a Shakespeare play is titled for what *Merry* people of *Windsor?*
ANSWER: **wife** [accept word forms; or *The* ***Wives****' Excuse* or *The Provoked* ***Wife*** or *The Country* ***Wife*** or *Merry* ***Wives*** *of Windsor*]
<Literature British - Joseph Krol>

9. This was the **(emphasize)** first city in which an artist handed out pink postcards asking "As a woman, what I most hate about the city is..." for her artwork *The Clothesline*. This city's revolutionary print workshop, the TGP, was visited by Elizabeth Catlett and Mariana Yampolsky. An artist from this city painted herself holding her nude, baby-like husband, whose third eye is open, in a painting depicting a "love embrace." A museum in this city called the Blue House was once the home of an artist who painted her head on an animal filled with arrows in *The Wounded Deer*. An artist from this city depicted two versions of herself connected by an artery in one of many self-portraits emphasizing her unibrow. For 10 points, name this home city of Frida Kahlo.
ANSWER: **Mexico City** [or **Ciudad de México** or **Coyoacán**]
<Arts Painting - Vishwa Shanmugam>

10. In a 2017 book he co-wrote with Katarzyna de Lazari-Radek, this philosopher argued that egoism, unlike utilitarianism, could be disproved with an evolutionary debunking argument. This philosopher, who notoriously defended consensual bestiality in an op-ed entitled "Heavy Petting," wrote a famous essay which contrasts helping "a Bengali whose name I shall never know" with saving a neighbour's child from drowning in a shallow pond. This leading exponent of effective altruism endorsed the charity evaluator GiveWell in his book *The Life You Can Save*. This author of "Famine, Affluence, and Morality" argued for veganism from a utilitarian standpoint in a book that popularized the term "speciesism." For 10 points, name this Australian philosopher who wrote *Animal Liberation*.
ANSWER: Peter **Singer**
<RMP Philosophy/Thought - Joseph Krol>

11. The Gunboat War began after a response to this policy, and one country attempted to prevent the enactment of this policy at the Battle of Køge **(koo-YEH)**. A city defended by Ernst Peymann was attacked by a fleet under Lord Cathcart during one response to this policy. A war fought over this policy resulted in Russia gaining territory which became the Grand Duchy of Finland. The House of Braganza's refusal to comply with this policy led to a war which forced them to flee to Brazil. That invasion of Portugal under this policy marked the beginning of the Peninsular War. In violation of the Treaty of Tilsit, Russia ended cooperation with this policy in 1812, leading the Grande Armée to conduct a disastrous invasion. For 10 points, name this embargo of the United Kingdom by much of Europe under Napoleon.
ANSWER: **Continental System** [accept **Continental Blockade** or **Blocus continental**; prompt on Napoleon’s embargo of the United Kingdom or similar answers before mention]
<History European 1400-1914 - Steven Liu>

12. In this play, a photograph lights up "as if in answer" to the question "Who ever got himself out of [a nailed-up coffin] without removing one nail?" A screen device in this play is used to project phrases such as "Ou sont les neiges" and "the Crust of Humility." A woman misses a D.A.R. meeting in this play when she finds out her daughter dropped out of typing school. In this play, a speech about a "world ... lit by lightning" ends with a command to the protagonist's sister to "blow your candles out." Before revealing he is engaged to an Irish girl named Betty, Jim O'Connor kisses Laura during a blackout in this play. For 10 points, name this memory play about the Wingfield family, written by Tennessee Williams.
ANSWER: "The **Glass Menagerie**"
<Literature American - Caroline Mao>

13. A New Orleans-based performer of this instrument who titled a 2015 album after his concept of *Stretch Music* is Christian Scott aTunde Adjuah. This instrument was played by a performer who recorded the album *The Avant Garde* with John Coltrane and pioneered world fusion music after moving to Sweden in the 1960s. The "pocket" version of this instrument was performed by Don Cherry on Ornette Coleman's *Free Jazz*. A performer on this instrument won a Pulitzer Prize for his oratorio *Blood on the Fields* and is the current head of Jazz at Lincoln Center. This instrument was played by the lead performer on the tracks "Freddie Freeloader" and "So What." For 10 points, name this brass instrument played by Wynton Marsalis and on *Kind of Blue* by Miles Davis.
ANSWER: **trumpet**
<Arts Jazz - Ethan Strombeck>

14. This process is indicated by a region of contrast enhancement called the spot sign in a CT scan. In babies, vacuum-assisted delivery is a risk factor for this process occurring in the subgaleal **(sub-GAY-lee-uhl)** space, which is indicated by "raccoon eyes." This process occurs into the germinal matrix or choroid plexus in an intraparenchymal **(in-truh-puh-RENG-kuh-mull)** form of it common in low birth weight babies. An excess amount of this process leads to a namesake "shock" caused by hypovolemia. This process may occur in the subarachnoid **(sub-uh-RACK-noid)** space as a result of a cerebral aneurysm. Ischemic strokes are contrasted with strokes characterized by this process caused by the rupture of a vessel. For 10 points, name this process in which blood is lost from the circulatory system.
ANSWER: **hemorrhaging** [or **bleed**ing; accept **blood loss** before "blood is lost"; accept **hemorrhagic** shock; prompt on stroke or cerebrovascular accident or CVA with "what process occurred to cause the stroke?"; prompt on blood vessel rupture or aneurysms with "what process do aneurysms cause?"]
<Science Biology - Geoffrey Chen>

15. Miss Lyngate is angered when Count Borselli compliments one of these objects belonging to the governess Miss Robinson in a short story by W. Somerset Maugham **(mawm)**. Waldo steals one of these objects, which Stan Phillips had gifted to Lola, in the story "Red Wind." Mrs. Guy shows one of these objects to Charlotte, whose cousin, Arthur Prime, falsely claimed he had destroyed that one of these objects belonging to her aunt. A woman imagines "delicate meals, gleaming silver" in a story titled for one of these objects, which inspired the Henry James story "Paste." A woman works for ten years to pay back the debt to replace one of these objects borrowed from Madame Forestier. For 10 points, name this type of object lost by Mathilde Loisel in a short story by Guy de Maupassant.
ANSWER: **necklace** [or diamond **necklace** or pearl **necklace**; or "A **String of Beads**"; prompt on pearls; prompt on diamonds; prompt on jewelry]
<Literature European - Caroline Mao>

16. This artist wrote the spoken word performances "Dawn's Highway" and "Ghost Song" after seeing Native Americans dead after a desert car crash. This artist hosted a live performance called the "Celebration of the Lizard" in which his song "Not to Touch the Earth" was recited multiple times. The grave of this 27 Club member was once covered in chewing gum and cigarettes and is the most visited in Paris' Père Lachaise **(pair la-shes)** cemetery. Under the pseudonym Mr. Mojo Risin, this artist wrote about "riders on the storm/into this world we're born" in his poem "The Hitchhiker." This artist formed a band with Ray Manzarek which performed his songs "Break On Through (To the Other Side)" and "Light My Fire." For 10 points, name this songwriter and lead singer of *The Doors*.
ANSWER: Jim **Morrison** [prompt on the Lizard King or Mr. Mojo Risin before mention]
<Other Academic - Ganon Evans>

17. Munk's enigma refers to a supposed discrepancy between the changes in the value of this quantity and changes in the length of a day. Along with the rate of sedimentation, changes in this quantity are the primary driver of changes in stratigraphic accommodation. The zero point of this quantity was measured by the TOPEX satellite. Like geopotential, the mean zero level of this quantity is represented by the geoid **(JEE-oid)**. The word "eustasy" **(YOO-stuh-see)** refers to global changes in this quantity. Modern increases in this quantity are driven primarily by thermal expansion of water, and to a lesser extent, the rapid melting of glaciers. Altitude is defined relative to, for 10 points, what quantity which represents the height of the Earth's oceans?
ANSWER: mean **sea level** [or other forms of **sea level** like eustatic **sea level** or local mean **sea level**; prompt on altitude or elevation by asking “what quantity are the quantities defined in relation to?”]
<Science Earth Science - Geoffrey Chen>

18. This man was contrasted with Fanny Trollope in a depiction of him as the character "Nimrod Wildfire” in James K. Paulding's *The Lion of the West*. This man introduced a resolution to close West Point on the grounds that it only benefited the wealthy. Alexis de Tocqueville lamented this man's election because he had no education and "dwelled continuously in the woods." This Whig lost an 1831 election after he opposed his fellow Tennessean Andrew Jackson, and after a later election he said critics could "go to Hell" and he would "go to Texas." This man was depicted in a coonskin cap based partially on an account by his daughter. For 10 points, name this frontiersman whose image was revived in a 1950s Disney series, and who died at the Alamo.
ANSWER: Davy **Crockett** [or David **Crockett**]
<History American (pre-1865) - Matthew Lehmann>

19. Three kilograms of rice or wheat are involved in determining who is responsible for this practice. In former Mongol-ruled areas, this term was often used euphemistically to refer to the *tamgha* **(tahm-gah)** system. The destinations of this practice may include *fuqara* **(foo-gar-ah)** and *al-masakin* **(al-mah-sah-keen)**, as well as the broadly interpreted phrase *fi sabilillah* **(fee sah-bil-lee-lah)** or "God's cause." Those who do not have access to more than a minimum *nisab* **(nee-sahb)** are exempt from this obligation. The public financing function of this obligation was largely replaced by the *waqf* **(wahk-f)**. This obligation is calculated based on 2.5 percent of assets. For 10 points, name this third pillar of Islam, which consists of giving to charity.
ANSWER: **zakat** [prompt on almsgiving; prompt on charity; prompt on charitable giving]
<RMP Non-Christian/Bible Religion - Matt Weiner>

20. A policy proposed by this economist is the subject of the "double-dividend" hypothesis. According to this economist, deflation increases output and employment due to an increase in the "real balance" of wealth. Greg Mankiw **("man"-CUE)** founded a club named for this economist who founded welfare economics with his book *The Economics of Welfare*. William Baumol **(BOW-moll)** repopularized a quantity named for this economist which is theoretically optimal when it makes marginal social cost and marginal social benefit equal. This Cambridge economist names a policy that targets such problems as the consumption of soft drinks or creation of pollution. For 10 points, identify this economist who advocated the mitigation of negative externalities through his namesake taxes.
ANSWER: A. C. **Pigou** [or Arthur Cecil **Pigou**; accept **Pigouvian** taxes; accept **Pigou** effect; accept **Pigou** Club]
<Social Science Economics - Clark Smith>

21. Members of this denomination may practice a ritual in which they each bring some water from a meaningful place and combine the waters into a single bowl. Certain churches of this denomination are designated as Welcoming Congregations for LGBT-affirming practices. This religious group bases its practice on Six Sources and Seven Principles. The most common symbol for this denomination features two overlapping circles around an off-center flaming chalice. This liberal denomination, which is often criticized for its lack of a formal creed, was formed from the 1961 merger of a group that believed everyone will be saved and non-trinitarians. For 10 points, give the alliterative name of this denomination whose members are sometimes called UUs.
ANSWER: **Unitarian Universalism** [or **UU**s before "UUs" is read; or **Unitarian Universalists**; prompt on Unitarianism; prompt on Unitarians and word forms; prompt on Universalists] (the first line refers to Water Communion)
<RMP Christian/Bible Religion - Clark Smith>

**2021 National All-Star Academic Tournament**

**Round 12 – Bonuses**

1. A poem in *The Colossus* that describes "my heart under your foot, sister of a stone" is titled for a daughter of an expert on these animals. For 10 points each:
[10] Name these animals, the subject of a quartet of poems that were originally intended to end the collection *Ariel*, but were moved to the middle by Ted Hughes.
ANSWER: **bee**s [or **bumblebee**s; or "The **Bee**keeper's Daughter"; prompt on insects]
[10] Ted Hughes defied this poet's wishes by moving the "bee sequence" to the middle of their collection *Ariel*, which also includes the poems "Daddy" and "Lady Lazarus."
ANSWER: Sylvia **Plath**
[10] This poet asked "Sylvia, Sylvia / where did you go / after you wrote me / from Devonshire / about raising potatoes / and keeping bees?" in the elegy "Sylvia's Death." This Confessional poet's own suicide was presaged by the poem "Wanting to Die."
ANSWER: Anne **Sexton**
<Literature American - Tim Morrison>

2. It's not in Virginia, but in 1972, an author's Rowan Oak estate was donated to a university in this city by Jill Summers. For 10 points each:
[10] Name this city, nicknamed the "Little Easy," which is home to the Calvert Vaux **(vauks)**-designed Ammadelle House. In 2020, Lafayette County officials voted against moving a Confederate monument out of this city's Lyceum district.
ANSWER: **Oxford**, Mississippi
[10] Another college town named Oxford is home to this state's Miami University. An 1835 war between this state and its northern neighbor inspired a fierce football rivalry that plays out at a horseshoe-shaped stadium here.
ANSWER: **Ohio**
[10] Ohio and this other state both have state universities in their respective cities of Athens. This state is home to a namesake "institute of technology" whose mascot is the Yellow Jackets.
ANSWER: **Georgia**
<Geography - Hari Parameswaran>

3. Answer the following about Serbian women and scientific discoveries. For 10 points each:
[10] Senta Troemel-Ploetz and Evan Harris Walker argued this woman was under-credited for her calculations on special relativity based on usage of "we" and "our" in early drafts of papers. This first wife of Albert Einstein was the subject of a 2019 biography by Allen Esterson.
ANSWER: **Mileva** **Marić** [or **Mileva** Einstein-**Marić**, Accept either underlined answer]
[10] Laza Kostić arranged a marriage between Lenka Dundjerski and this Serbian inventor while he was building the Wardenclyffe transmission tower in the United States. This man championed alternating current.
ANSWER: Nikola **Tesla**
[10] Serbian philosopher of science Maja Solar wrote her thesis on this person "and Essentialism." A movement named for this man was first codified in American historical thought by a Richard Hofstadter book and included William Graham Sumner and the author of *Social Statics.*

ANSWER: Charles Robert **Darwin** [accept Social **Darwin**ism or word forms]

<History European 1400-1914 - Ganon Evans>

4. According to the answer to the most upvoted StackOverflow question, iterating through sorted arrays is faster than through unsorted arrays due to this technique. For 10 points each:
[10] Name this technique in which a CPU guesses which instructions to load before a conditional is evaluated. The Spectre and Meltdown bugs exploit the results of this technique when it is followed by speculative execution.
ANSWER: **branch prediction** [accept word forms; accept answers indicating certain types of branch prediction, like dynamic **branch prediction**]
[10] Spectre uses a timing attack to read privileged data from this entity after a branch misprediction. The L1, L2, and L3 examples of these entities differ in their size and speed.
ANSWER: **cache**s [accept L1, L2, or L3 **cache**s; prompt on memory or buffers]
[10] While Spectre affects nearly all processors, Meltdown essentially only affects some ARM processors and processors made by this company. This company manufactures the i5 and i7 processors.
ANSWER: **Intel** Corporation
<Science Computer Science - Vishwa Shanmugam>

5. An early book in this field was Origen's **(aw-ruh-jin's)** *Contra Celsum* **(kon-trah kel-soom)**, which sought to prove that Christianity had answers to then-contemporary questions. For 10 points each:
[10] Name this field which attempts to defend the veracity of the claims of Christianity. Its name comes from a Greek term referring to an oral legal defense.
ANSWER: Christian **apologetics** [or **apologism**; or **apology**; or **apologies**; or ***apologi***]
[10] This book of Christian apologetics by Lee Strobel **(stroh-bel)** consists of a summary of thirteen interviews with theologians and philosophers such as William Lane Craig and Gary Habermas **(ha-ber-muhs)**. This book was turned into a 2017 drama film of the same name.
ANSWER: *The* ***Case for Christ***
[10] Many apologetics utilize a theodicy **(thee-ah-di-cy)**, a defense against the problem of this concept. This concept's problem is often stated as "how could a good God allow bad things to happen?"
ANSWER: **evil** [accept **problem of evil**]
<RMP Christian/Bible Religion - Bradley McLain>

6. Answer the following about early work in European ethnomusicology, for 10 points each.

[10] Jaap Kunst **(YAHP KOONST)**, who coined the term ethnomusicology, was a scholar of music for this non-European ensemble. A performance by one of these ensembles at the 1889 Paris World's Fair inspired Debussy to mimic its style with whole-tone scales in the piece "Pagodes."

ANSWER: **gamelan** [accept specific forms like Javanese **gamelan** or Balinese **gamelan**]
[10] Two pioneers of ethnomusicology from this country that recorded its folk music on walking trips were the composers Béla Bartók and Zóltan Kódaly **(koh-DIE)**.
ANSWER: Kingdom of **Hungary** [or **Magyarorszag**]
[10] Another pioneering comparative musicologist was this Austrian, who worked with Curt Sachs to create a taxonomy of musical instruments with groups such as "membranophones" and "chordophones."
ANSWER: Erich Moritz von **Hornbostel**
<Arts Music - Shan Kothari>

7. This man was nicknamed "Neutron" for his strategy of "nuking" the bottom ten percent of managers as the pioneer of "rank and yank" strategies. For 10 points each:
[10] Name this CEO of General Electric during the 1990's who popularized Bill Smith's DMAIC Cycle and Six Sigma strategies towards industrial production.
ANSWER: Jack **Welch** [or John **Welch**; prompt on Neutron Jack]
[10] During his time as CEO, Jack Welch frequently experienced conflict with this government organization. This organization was founded in 1970 and William Ruckelshaus served as its first head.
ANSWER: **EPA** [or **Environmental Protection Agency**]
[10] Welch is frequently referred to as the "second founder" of GE, the first being this inventor whose Menlo Park-based lamp, motor, and electric lights companies merged in 1889 to form GE with funding from J.P. Morgan and Anthony Drexel.
ANSWER: Thomas **Edison**
<History American (1945-present) - Ganon Evans>

8. This book begins by discussing the convicted felon Jarvious Cotton who, like his enslaved great-great-grandfather, cannot vote. For 10 points each:
[10] Name this 2010 book by Michelle Alexander, subtitled "Mass Incarceration in the Age of Colorblindness," which argues that the War on Drugs and mandatory minimums has created a "racial caste system."
ANSWER: *The* ***New Jim Crow***
[10] Alexander noted that the rise of mass incarceration can be traced to a "pipeline" that begins in these places and ends in prisons. Zero-tolerance policies in these places often lead to suspensions.
ANSWER: **school**s [or **school**-to-prison pipeline; accept ]
[10] This Harvard sociologist, who died in 2018, found that black men with a criminal record only had a 5% chance of receiving job offers in her PhD dissertation *The Mark of a Criminal Record*.
ANSWER: Devah Iwalani **Pager**
<Social Science Sociology - Noah Sheidlower>

9. A thermometer undergoing this phenomenon will experience a temperature whose magnitude is similar in form to the Hawking temperature. For 10 points each:
[10] Name this phenomenon undergone by Rindler observers, who experience the Unruh effect.
ANSWER: **acceleration** [or word forms]
[10] The worldline of an object that experiences constant proper acceleration for infinite time is asymptotic to a "cone" traced out by this phenomenon. This phenomenon, whose quanta is the photon, always moves at the same rate regardless of the observer's frame of reference.
ANSWER: **light** [accept **light** cone; prompt on electromagnetic radiation]
[10] This principle, a precursor to general relativity, states that the presence of gravity is indistinguishable from being in an accelerating reference frame.
ANSWER: **equivalence** principle
<Science Physics - Steven Liu>

10. In a charity performance of this play, Dostoyevsky played a postmaster whose arrival prompts the Mayor to tell the audience, "What are you laughing about? You are laughing at yourselves!" For 10 points each:
[10] Name this 1836 play in which the townspeople offer the conman Khlestakov massive bribes after mistaking him for the title state official.
ANSWER: *The* ***Government Inspector*** [or *The* ***Inspector*** *General* or ***Revizor***]
[10] *The Government Inspector* is a play by this Russian author, whose other satirical works include short stories like "The Nose" and "The Overcoat."
ANSWER: Nikolai **Gogol**
[10] The plot of *The Government Inspector* may have inspired this 1956 Swiss play, in which Claire Zachanassian offers a billion francs to her hometown Güllen on the condition that the townspeople kill her lover Anton.
ANSWER: *The* ***Visit*** [or *Der* ***Besuch*** *der alten Dame*] (by Friedrich Dürrenmatt)
<Literature European - Joseph Krol>

11. The salmonella-derived peptide entolimod can treat both "gastrointestinal" and "hematopoietic" **(him-uh-toh-POI-et-ick)** forms of a syndrome caused by this phenomenon. For 10 points each:
[10] Name this phenomenon. Either it or a drug-based method are used to ablate bone marrow in preparation for bone marrow transplants.
ANSWER: ionizing **radiation** [or **radiotherapy**; accept electromagnetic **radiation**; prompt on light; prompt on electromagnetic waves; prompt on photons; prompt on x-rays; prompt on gamma rays; prompt on alpha particles; prompt on beta particles; prompt on electrons; prompt on positrons; prompt on neutrons; prompt on protons]
[10] Radiotherapy is an alternative to this drug-based treatment of cancer, which may use alkylating drugs like cyclophosphamide.
ANSWER: **chemo**therapy
[10] Radiotherapy is administered according to schedules named for this technique, whose success depends on the "four r's". It involves administering smaller doses over many days to allow tumors to become radiosensitive and to allow healthy cells to perform DNA repair processes.
ANSWER: dose **fractionation** [or **fractionation** schedules]
<Science Biology - Vishwa Shanmugam>

12. In this god's namesake cycle, this god is killed after he served Mot bread and wine instead of blood. For 10 points each:
[10] Name this Canaanite **(kae-nan-ite)** storm god who was closely associated with Hadad. In the Old Testament, priests of this god were humiliated by Elijah when they were unable to call down fire to light an altar.
ANSWER: **Ba'al**
[10] After eating a feast of mud, Ba'al became trapped in this domain, which was ruled by his murderer, Mot. In Greek mythology, Hades, the god of this domain, kidnapped Persephone and forced her to live there.
ANSWER: **underworld** [accept **hell** or similar answers]
[10] After Mot kills Ba'al, this sister of Ba'al takes revenge by torturing Mot with a sieve and millstone. In the story of Aqhat **(ah-kaht)**, a bow owned by this goddess is given to Danel **(day-nell)** as a gift for the birth of his son.
ANSWER: **Anat**h
<RMP Non-Greek/Roman Myth - Bradley McLain>

13. In a novel, a man witnesses "ten thousand tiny bubbles bursting on his skin" while burying an elder of this ethnicity in a sinkhole. For 10 points each:
[10] Name this ethnicity of a character who is separated from his foster son, Simon P. Gillayley. In that novel, a woman who is part-European and part-[this ethnicity] lives in an abandoned tower by the sea.
ANSWER: **Māori**
[10] Keri Hulme created those characters in *The Bone People,* which won this literary prize in 1984. This prize was traditionally only awarded to authors from Commonwealth countries, but has since been awarded to the best English-language work.
ANSWER: Man **Booker** Prize
[10] In *The Bone People,* Kerewin admits she gave up this profession because "Something has died. Isn't there now." In another novel, Masuji Ono reflects on his work in this profession during World War II.
ANSWER: **artist** [accept **painter**; prompt on propagandist] (the second novel is *An Artist of the Floating World*)
<Literature World / Classical / Misc - Hari Parameswaran>

14. This actress won her first César Award for playing the murderous postmistress Jeanne opposite Sandrine Bonnaire in the film *La Cérémonie*. For 10 points each:
[10] Name this French actress, whose many collaborations with Michael Haneke include her role as the sexually-repressed title character of *The Piano Teacher*.
ANSWER: Isabelle **Huppert** **(EU-pair)**
[10] Early in her career, Huppert starred in this French New Wave director's *Every Man for Himself*. Anna Karina starred in many of this director's films, though she rejected a minor role in his film *Breathless*.
ANSWER: Jean-Luc **Godard**
[10] Huppert plays three different women who visit this country in the 2012 film *In Another Country*. An "art therapist" cons a rich woman about the "schizophrenia zone" of her son's paintings in a film from this country.
ANSWER: **South Korea** [or **Republic of Korea**; or **ROK**; prompt on Korea; do not accept or prompt on "Democratic People's Republic of Korea" or "DPRK"] (the second film is 2019's *Parasite*)
<Arts Film - Tim Morrison>

15. This man took the throne at age sixteen after Shashanka of Gauda murdered his brother Rajya. For 10 points each:
[10] Name this king of Thanesar and Kannauj whose biography by Banabhatta describes his conquest of most of northern India during the 610s AD. The historical basis of the *Journey to the West* visited this man's court to acquire Buddhist scriptures.
ANSWER: **Harsha**vardhana
[10] Harsha was one of the first kings to reunify a significant portion of India following the fall of this empire in 543. Kalidasa wrote under this empire, which patronized the canonical written forms of most Hindu scriptures.
ANSWER: **Gupta** Empire [or **Gupta** Dynasty; or **Guptas**]
[10] Harsha fought against the Alxons, who are often dubbed the "Alchon" kind of these people and contributed to the destruction of the Guptas. The Kidarite, Nezak, and Hephthalite kingdoms are also frequently dubbed subgroups of these people.
ANSWER: **Hun**s [or White **Hun**s]
<History World - Matt Weiner>

16. The catalytic function of this metal is replaced with the use of cyclooctynes in a bioorthogonal method from the Bertozzi lab. For 10 points each:
[10] Name this cytotoxic metal which can accelerate the Huisgen cycloaddition.
ANSWER: **copper** [or **Cu**; prompt on CuAAC]
[10] The CuAAC reaction can be used *in vivo* with this benign solvent, which makes up the majority of the cytosol. The use of this universal solvent is a major tenet of click chemistry.
ANSWER: **water** [or **H2O**]
[10] Practical use of many bioorthogonal reactions relies on modified examples of these molecules like L-AHA and L-HPG, which will be used by a cell. Beta examples of these molecules can be formed by homologation via the Arndt-Eistert reaction.
ANSWER: **amino acid**s [accept beta-**amino acid**s; prompt on carboxylic acids]
<Science Chemistry - Kevin Wang>

17. Mrs. Ramsay is stressed when Minta Doyle is late to one of these events after losing her grandmother's brooch on the beach. For 10 points each:
[10] Name this type of event where a woman thinks to herself that her old crush, Sally Seton, is "less lovely" than she had been at Bourton.
ANSWER: a **party** [or a **dinner** party]
[10] This writer lamented "what passes for cookery in England is an abomination" during a dinner party in their novel *To the Lighthouse.*
ANSWER: (Adeline) Virginia **Woolf**
[10] The first section of *To the Lighthouse*, "The Window," climaxes with a candlelit dinner centered on this complex French dish made by the cook Mildred. William Bankes ultimately declares this dish "a triumph."
ANSWER: *boeuf en* ***daube*** **(buhf on dobe)** [prompt on boeuf or beef]
<Literature British - Shan Kothari>

18. *Description acceptable*. Derek Parfit's non-identity problem, also called the "paradox of [these people]," concerns the rights these people have despite their non-existence. For 10 points each:
[10] Name these people. The way these people will be affected by climate change and nuclear waste are major issues in intergenerational ethics.
ANSWER: **future** people [or **future** generations; or **descendants**; accept clear equivalents, such as **people who haven’t been born yet**]
[10] The "just savings" principle for dealing with future generations was proposed in this book, which argues that the "original position" should only include people in the present when considering the future.
ANSWER: *A* ***Theory of Justice*** (by John Rawls)
[10] This philosopher advocated an interest theory of rights in his 1974 paper "The Rights of Animals and Future Generations." He argued for an alternative to the harm principle, called the "offense principle," by imagining individuals performing increasingly disgusting actions during "a ride on the bus."
ANSWER: Joel **Feinberg**
<RMP Philosophy/Thought - Joseph Krol>

19. This artist sawed his *Self-Portrait with Tulla Larsen* in half after he ended their engagement. For 10 points each:
[10] Name this artist who depicted his courtship with three different versions of a woman believed to be Larsen in *Dance of Life*. Angst over other failed relationships inspired his paintings *Ashes* and *Separation*.
ANSWER: Edvard **Munch**
[10] Munch shot himself in the finger while arguing with Larsen, inspiring him to paint a version of this scene in which he is lying on a bed with a bleeding hand while a nude Larsen stares towards the viewer.
ANSWER: ***Death of Marat*** [or ***Death of Marat*** *II]*
[10] Munch referred to a painting of his later lover, Eva Mudocci, as this figure *of the Brooch*. Munch painted a bare-breasted, black haired woman as this figure, the typical name for Mary in paintings.
ANSWER: **Madonna**
<Arts Painting - Jakob Boeye>

20. This man often quarreled with traffic commissioner Henry Barnes over issues like the prevalence of Barnes scramble intersections and bus lanes, which this man hated. For 10 point each:
[10] Name this controversial city planner from New York, the subject of Robert Caro's biography *The Power Broker*. He pioneered the use of public-benefit corporations to avoid regulations.
ANSWER: Robert **Moses**
[10] Jane Jacobs helped defeat one of these projects Moses planned in lower Manhattan. The Eisenhower administration proposed an interstate network of this kind of infrastructure.
ANSWER: **highway**s [or **expressway**s; or **freeway**s; accept **parkway**s]
[10] Before moving to New York City, Barnes revamped the gridlocked road system in this city, where he was appointed traffic commissioner by Nancy Pelosi's father, Mayor Thomas D'Alesandro Jr.
ANSWER: **Baltimore**, Maryland
<History American (1945-present) - Shan Kothari>

21. A massive swirling sky dwarfs soldiers struggling to cross a mountain in a painting by this artist depicting a *Snow Storm*. For 10 points each:
[10] Name this artist, who painted fantastically colored skies in paintings like *Dido Building Carthage*.
ANSWER: Joseph Mallord William **Turner**
[10] Scientists have linked the colors of sunsets painted by J.M.W. Turner to one of these events in 1815 that visibly changed the color of the sky and caused the "year without a summer."
ANSWER: volcanic **eruption**s [or **volcan**ic events or similar answers; accept the eruption of Mount **Tambora** or **Krakatoa**]
[10] This artist's series of paintings of Vesuvius erupting in the 1770s features red and orange skies colored from his imagination. Three men inspect a model of a Greek sculpture that is illuminated by candlelight in a painting by this member of the Lunar Society.
ANSWER: Joseph **Wright** of Derby
<Arts Painting - Joseph Krol>