

## 2022 IQBT Undergraduate Championship Qualifier Event

1. This theorem is the classical analog of the quantum Ward-Takahashi identities. For 10 points each:

[10] Name this theorem, which states that any differentiable symmetry of a physical system's action corresponds to a conserved quantity.

ANSWER: **Noether's (NUR-turz)** theorem [or **Noether's** first theorem]

[10] By Noether's theorem, rotational symmetry of a system implies that this quantity is conserved. In the absence of external torque, this quantity is conserved, a fact which is often illustrated by imagining a skater bringing his arms closer to his body in order to spin faster.

ANSWER: **angular momentum** [do not accept or prompt on "momentum"]

[10] A simple case of Noether's theorem links conserved quantities to this type of coordinate, for which the derivative of the Lagrangian with respect to the coordinate equals zero.

ANSWER: **ignorable** coordinates [or **cyclic** coordinates]

<Joseph Krol, Science - Physics>

2. This author's ex-husband withheld her personal papers from the public, concealing her lesbianism for years after her death from pancreatic cancer. For 10 points each:

[10] Name this author whose work directly inspired Bruce Norris's sequel *Clybourne Park*.

ANSWER: Lorraine **Hansberry** [Lorraine Vivian **Hansberry**]

[10] *Clybourne Park* is based on this Hansberry play about the Younger family's attempts to move into a white Chicago neighborhood.

ANSWER: A ***Raisin in the Sun***

[10] This ex-husband of Hansberry depicted her writing of *A Raisin in the Sun* is the 1968 play *To Be Young, Gifted and Black: Lorraine Hansberry in her Own Words*, which he compiled from Hansberry's unpublished autobiographical writings.

ANSWER: Robert **Nemiroff** [Robert B. **Nemiroff**]

<Joseph Krol, Literature - American>

3. These creatures variously take the form of vampires who suck blood through their tongues, oversized birds, weredogs, and ghouls. For 10 points each:

[10] Name these malevolent creatures of Filipino mythology, said to cause miscarriages and stillbirths in pregnant women.

ANSWER: **Aswang**

[10] Another of the forms of the Aswang is a black Siamese one of these animals. In European folklore, the black type of these animals accompany witches.

ANSWER: **cats** [black **cats**]

[10] The Aswang can be attacked by wielding a Buntot Pagi (**bun-TOT pah-GIE**), the tail of one of these animals. The genus *Mobula* contains a variety of these relatives of sharks.

ANSWER: **rays** [or sting**rays** or devil **rays**; do not accept or prompt "fish"]

<Kurtis Droge, Other - Geography/CE/Other>

4. The court official Bidam launched a rebellion against this kingdom. For 10 points each:

[10] Name this kingdom, once ruled by Queen Seondeok (**SUN-duk**), that introduced the bone rank system after taking over other former components of the Jinhan confederacy.

ANSWER: **Silla** [or **Saro-guk**]

[10] Silla participated in a period of Korean history named for this many kingdoms. The time after the Han dynasty in China is also named for this many kingdoms.

ANSWER: **three** [or **three** kingdoms period]

[10] Emperor Taizong of this Chinese dynasty initially refused to recognize Seondeok because she was a woman, but later formed an alliance with her. A half-Göktürk (**gurk-turk**) general attempted to replace this dynasty with the Yan dynasty.

ANSWER: **Tang** dynasty [The general was An Lushan.]

<Lalit Maharjan, History - World>

5. With Marianne Bertrand and Esther Duflo, this economist investigated the patterns of standard errors in Differences-in-Differences estimations in female wage data. For 10 points each:

[10] Name this co-founder of the MIT Poverty Action Lab who worked with Eldar Shafir on the book *Scarcity: Why Having Too Little Means So Much*.

ANSWER: Sendhil **Mullainathan**

[10] A paper by Bertrand and Mullainathan used a "skimming" model to explain how the pay of these people are tied to luck and skill. Researchers such as Lawrence Mishel have attacked the skyrocketing pay of these people.

ANSWER: **CEOs** [or **chief executive officers**; or corporate **executives**; do not accept "managers"; do not accept "workers"]

[10] In 2018, Mullainathan joined the Booth School of Business at this university. Milton Friedman was part of this university's namesake school of neoclassical economic thought.

ANSWER: University of **Chicago** [or **UChicago** or **Chicago** school of economics]

<Kurtis Droge, Social Science - >

6. Vasari commented that this sculpture's body "reflects a perfect and complete understanding of human anatomy" due to its subject's "fasting and abstinence." For 10 points each:

[10] What wooden sculpture, made around 1455, depicts an emaciated figure with hands nearly touching in prayer?

ANSWER: **Penitent Magdalene** [or **Magdalene Penitent** or **Penitent Magdalena** or **Maddalena penitente**]

[10] That *Penitent Magdalene* was sculpted by this Italian artist, who also designed the equestrian statue *Gattamelata* (**GAT-ah-mell-AH-tah**) and a bronze *David*.

ANSWER: **Donatello** [or Donato di Niccolò di Betto **Bardi**]

[10] For most of its recorded history up to the 20th century, the *Penitent Magdalene* was on display in this building. Filippo Brunelleschi (**broo-nuh-LEH-skee**) largely abandoned sculpture for architecture after losing a 1401 competition to design this building's east doors.

ANSWER: Florence **Baptistry** [or the **Baptistry** of Saint John or the **Baptistry** of Florence Cathedral or il **Battistero** di San Giovanni; do not accept or prompt on "Florence Cathedral"]

<Joseph Krol, Fine Arts - Painting & Sculpture>

7. The lattice energy of systems held together by these interactions is estimated by the Kapustinskii (**cap-uh-STIN-ski**) equation. For 10 points each:

[10] Name these bonds formed when an atom transfers an electron, unlike covalent bonds.

ANSWER: **ionic** bonds

[10] The Kapustinskii equation is based on an equation named for Alfred Landé and this other scientist. This scientist is the first namesake of an assumption from quantum chemistry that is based on electrons' low mass compared to nucleons.

ANSWER: Max **Born** [accept **Born**-Landé equation or **Born**-Oppenheimer approximation]

[10] Unlike the Born-Landé equation, the Kapustinskii equation does not explicitly include this geometry-dependent quantity, which is the sum of the potential energies of an atom in an ionic compound that result from every other atom in the compound.

ANSWER: **Madelung** constant [prompt on **M**]

<Joseph Krol, Science - Chemistry>

8. A peasant-born future emperor was elevated to power after winning a wrestling match with a champion of these people. For 10 points each:

[10] Name this group that, in 1014, was ruled by Tsar Samuel when its army was almost totally annihilated at the Battle of Kleidion (**KLAY-dee-on**).

ANSWER: **Bulgars** [or **Bulgarians**]

[10] Basil I (**the first**) founded the Macedonian Dynasty, whose last years were dominated by this niece of Basil II (**the second**). Though her own formal time in power lasted only six weeks, she controlled three husbands, a son, and a sister who all became emperor from 1025 to 1050.

ANSWER: **Zoë** Porphyrogenita (**por-FEE-roy-YEN-ee-tah**)

[10] An editorializing passage in the 1910 *Encyclopedia Britannica* originated Basil I's nickname as the "second" of this Byzantine emperor, who was married to Theodora and ordered a compilation of law codes.

ANSWER: **Justinian** [or **Justinian** the Great; or **Justinian I**]

<Lalit Maharjan, History - European>

9. For 10 points each, answer the following about the short story "Stranger, Bear Word to the Spartans We..."

[10] After fighting in this war, the narrator of the story slowly realizes that the hospital he has been taken to is his old school. Elie Wiesel's (**ELL-ee WEE-zuhl's**) book *Night* takes place during this war.

ANSWER: **World War II** [or **Second World War**; or **WW2**]

[10] "Stranger, Bear Word to the Spartans We..." is by this German author, who also addressed World War II in a 1958 novel in which the architect Robert Faehmel (**FAY-mul**) destroys St. Anthony Abbey.

ANSWER: Heinrich **Böll** (**HINE-rick BURL**) [The novel is *Billiards at Half-Past Nine*.]

[10] Like many works by members of Gruppe (**GRUP-uh**) 47, the story exemplifies this postwar German literary movement, whose sparse stories generally depict returning people's perspectives of the destruction of Germany.

ANSWER: **rubble** literature [or **Trümmer**literatur; or **clear-cutting** literature; or **Kahlschlag**literatur]

<Joseph Krol, Literature - European after 500 CE>

10. This method is likened to midwifery in the Platonic dialogue *Theaetetus* (**thee-uh-TEE-tuss**). For 10 points each:

[10] Give this method of teaching named for a Greek philosopher. Students are continuously questioned in this method, which today is used in many law schools.

ANSWER: **Socratic** method [or **Socratic** debate; or **Elenchus**; or **Elenchi**; or **elenctic** method]

[10] Diogenes Laërtius (**dai-AH-juh-neeZ lay-AIR-tee-us**) claimed that the Socratic method was actually developed by this philosopher, who stated "Man is the measure of all things." This sophist names a Platonic dialogue in which he quarrels with Socrates over whether virtue can be taught.

ANSWER: **Protagoras**

[10] In a different Platonic dialogue, Socrates employs the Socratic method when he asks for the shortest possible answer to the question "with what is" this discipline "concerned," to which a sophist replies "With discourse."

ANSWER: **rhetoric** [The sophist and the dialogue is Gorgias.]

<Lalit Maharjan, Philosophy - >

11. Answer the following about the SARS-CoV-2 virus, for 10 points each:

[10] Both the Pfizer and Moderna vaccines worked by introducing SARS-CoV-2 to the body using these molecules read by ribosomes.

ANSWER: **mRNA** [or **messenger RNA** or **messenger ribonucleic acid**; prompt on **RNA** or **ribonucleic acid**]

[10] This scientist developed a series of CRISPR-based tests for COVID. She shared the 2020 Nobel Prize in Chemistry with Emmanuelle Charpentier for developing CRISPR-based gene editing methods.

ANSWER: Jennifer Anne **Doudna**

[10] Instead of DNA, most at-home COVID tests check for the presence of these molecules that bind to antibodies.

ANSWER: **antigen** [accept **hapten**]

<Briana Magin, Science - Biology>

12. The *Bundahishn* (**BUN-da-HAI-sin**) places this event as "258 years" before "Alexander," though scholars such as Peter Kingsley have argued in favor of older dates, even "five thousand years before the siege of Troy" as recorded by Plutarch. For 10 points each:

[10] Name this event, prior to which a couple drank milk from virgin cows mixed with sacred twigs.

ANSWER: **life** of **Zoroaster** [or **birth** of **Zoroaster**; or **Zarathustra** in place of "Zoroaster"]

[10] An issue complicating efforts to date the birth of Zoroaster is that these people, the historical priests of the Zoroastrian religion, may have made up facts about Zoroaster's life.

ANSWER: **magi** [or **magus**]

[10] Ambiguity over Zoroaster's birthdate leads it to only sometimes be used as the starting point for these things in Zoroastrianism. The birth of Jesus is the starting point of the widely used Gregorian one of these things.

ANSWER: **calendar**s [or Zoroastrian **calendar**; or Gregorian **calendar**; or liturgical **calendar**s]

<Kurtis Droge, Religion - >

13. For 10 points each, answer the following about the history of soup kitchens in America.

[10] The concept was brought to the U.S. by immigrants from this island fleeing a "potato famine" in the 1840s.

ANSWER: **Ireland**

[10] An oft-reproduced 1937 Margaret Bourke-White photograph shows a line of displaced Black residents of Louisville waiting for aid in front of a mural displaying two patriotic phrases. Give either the five- or seven-word phrase visible in the photo.

ANSWER: **World's Highest Standard of Living** or **There's no way like the American Way**

[10] The term "breadline" is believed to have arisen from a Viennese bakery in this neighborhood that gave unsold bread to the poor. At an establishment in this neighborhood, Stormé DeLarverie urged crowds to confront police in 1969.

ANSWER: **Greenwich Village** [prompt on The Village; prompt on Christopher Street] [Waverly Place is on one side of the Stonewall Inn.]

<Lalit Maharjan, History - American>

14. This composer first collaborated with Charles Jennens on the oratorio *Saul*. For 10 points each:

[10] Name this Baroque composer who also worked with Jennens on the oratorio *Messiah*.

ANSWER: George Frideric **Handel** [or Georg Friedrich **Händel**]

[10] A chorus of Persians and Medes sings "See, from his post Euphrates flies" in a Handel oratorio titled for this man. This Babylonian partly names the most famous oratorio by William Walton.

ANSWER: **Belshazzar** [accept **Belshazzar's Feast**]

[10] This non-title character of another Handel oratorio performs the arias "Ev'ry sight these eyes behold" and "Will the sun forget to streak." Her name appears in the conventional title of a sprightly sinfonia for oboes and strings that opens Act Three.

ANSWER: The **Queen of Sheba** [or **Nicaule**; accept "Arrival of the **Queen of Sheba**"] [The oratorio is *Solomon*]

<John Lawrence, Fine Arts - Classical Music>

15. The 243 chapters of a work in this genre, including one about the beauty of uncertainty in life, may have been compiled from notes its author put on his cottage's walls. For 10 points each:

[10] The *Essays in Idleness* exemplifies what literary genre, which typically consists of free-flowing, loosely-connected short prose?

ANSWER: **zuihitsu** (**zwee-HIT-zoo**)

[10] This text, often held to be the first major zuihitsu work, includes "to pass a place where babies are playing" in a list of "Things That Make One's Heart Beat Faster" and includes other exhaustive lists of "Adorable Things" and "Depressing Things."

ANSWER: *The **Pillow Book*** [or **Makura no Sōshi**] [*The Pillow Book* is by Sei (**say**) Shōnagon.]

[10] Shōnagon's work was described as leaving "a great deal to be desired" in a diary written by this author of *The Tale of Genji*.

ANSWER: **Murasaki** Shikibu [or Lady **Murasaki**; or **Fujiwara** no Takako]

<Joseph Krol, Literature - World>

16. Answer the following about magnetic reconnection in the Sun, for 10 points each:

[10] Magnetic reconnection is a process by which stored magnetic energy can be suddenly released in this highly-ionized state of matter, which makes up most of the Sun.

ANSWER: **plasma**

[10] The first prominent model of magnetic reconnection was developed by Peter Sweet and this astrophysicist, who also developed the first model of solar wind in 1958.

ANSWER: Eugene **Parker** [Eugene Newman **Parker**; accept Sweet-**Parker** reconnection model or **Parker-Sweet** reconnection model]

[10] The Sweet-Parker model predicts a rate of magnetic reconnection too slow to explain these events, which often accompany solar flares. In these events, large amounts of plasma are released from a namesake region of the Sun into the heliosphere.

ANSWER: **coronal mass ejections** [or **CMEs** or **coronal ejections**]

<Joseph Krol, Science - Math/CompSci/Astronomy/Earth/Any>

17. In a novel by this author, Ellen Montgomery's growing Christian faith gives her comfort despite the death of her mother and being uprooted from the U.S. to Scotland. For 10 points each:

[10] Name this author of *The Wide, Wide World*.

ANSWER: Susan **Warner** [Susan Bogert **Warner** or Elizabeth **Wetherell**]

[10] *The Wide, Wide World* is part of an emotion-centered genre named for this adjective. This adjective partly-titles a European novel about the romantic young man Frédéric Moreau (**FRAY-day-reek moh-ROH**).

ANSWER: **sentimental** [or **sentimental** literature; or **sentimental** fiction; or novel of **sentiment**; or **Sentimental** *Education*; or L'Éducation **sentimentale**] [The European novel is by Gustave Flaubert.]

[10] Jo weeps while reading *The Wide, Wide World* in this novel about the youth of the March sisters by Louisa May Alcott.

ANSWER: **Little Women**

<Joseph Krol, Literature - American>

18. Shortly after a six-month spell in a mental institution, this jazz musician wrote the piece "Glass Enclosure." For 10 points each:

[10] What bebop pianist was a member of the group dubbed "The Quintet," who appeared on the live album *Jazz at Massey Hall*?

ANSWER: Bud **Powell** [or Earl Rudolph **Powell**]

[10] The trumpeter on *Jazz at Massey Hall* was this bebop pioneer, who co-wrote "Salt Peanuts" and was famous for performing with a bent trumpet and puffed-out cheeks.

ANSWER: **Dizzy Gillespie** [or John Birks **Gillespie**; accept any underlined part]

[10] The remaining performers on *Jazz at Massey Hall* were Charlie Parker, Max Roach, and this musician, who recorded the album *The Black Saint and the Sinner Lady* and wrote the songs "Goodbye Porkpie Hat" and "Fables of Faubus."

ANSWER: Charles **Mingus** Jr.

<Joseph Krol, Fine Arts - Other Fine Arts>

19. In the Aztec New Fire Ceremony, one of the first fires to be lit was at the temple of this god in the Templo Mayor (**mye-OR**). For 10 points each:

[10] Name this god who was the main dedicatee of the Templo Mayor, along with the rain god Tlaloc (**TLAH-lohk**).

ANSWER: **Huitzilopochtli** (**weet-see-luh-POWCH-tuh-lee**)

[10] The New Fire Ceremony began at a temple atop a dormant volcano, where the new fire would be lit in the chest of a sacrifice victim after this organ was removed.

ANSWER: **heart**

[10] The New Fire ceremony occurred at the end of a full cycle of the Aztec "calendar round," which comprised this many years.

ANSWER: **fifty-two** years

<Lalit Maharjan, Mythology - >

20. For 10 points each, answer the following about dubious claims of modern technology existing in the ancient Near East.

[10] The Dendera (**DEN-deh-ruh**) light is a carving found in this present-day country that some believe depicts a lightbulb. Conspiracies also surround a massive limestone tomb built for Khufu (**KOO-foo**) in this country.

ANSWER: **Egypt**

[10] Ramses II ordered the alteration of hieroglyphs from Seti I's (**the first's**) temple at Abydos (**aa-bee-DAHS**), producing an image that 1990s Internet theorists noted as resembling this kind of vehicle.

ANSWER: **helicopter** [or **whirlybird**; prompt on aircraft; prompt on chopper]

[10] This best-selling 1968 conspiracy text by Erich von Daniken claims that the pyramids, as well as Stonehenge, the Nazca Lines, and the visions described by biblical prophets, were all created by technologically advanced extraterrestrial visitors to Earth.

ANSWER: ***Chariots of the Gods?*: Unsolved Mysteries of the Past** [or ***Erinnerungen an die Zukunft: Ungelöste Rätsel der Vergangenheit***]

<Lalit Maharjan, History - Any>

<<<DO A SCORE CHECK>>>

21. Answer the following about Wisconsin serial killers, for 10 points each:

[10] In a 2022 Netflix series, Evan Peters portrayed this serial killer who terrorized Milwaukee in the early 1990s. Also in 2022, eBay banned the sale of disturbing Halloween costumes resembling this man.

ANSWER: Jeffrey **Dahmer**

[10] Ed Gein, a murderer and body snatcher who lived in Plainfield, Wisconsin, was one of the inspirations for the serial killer "Buffalo Bill" in this author's novel *The Silence of the Lambs*.

ANSWER: Thomas **Harris**

[10] Walter, a Milwaukee strangler with this surname, evaded police attention for years after dodging a DNA sample in prison. A British researcher with this surname challenged sexual taboos in the seven-tome *Studies in the Psychology of Sex*.

ANSWER: **Ellis** [or Walter **Ellis**; or Havelock **Ellis**]

<Kurtis Droge, Other - Geography/CE/Other>

22. The Freedom and Accord Party was part of this movement. For 10 points each:

[10] Name this reform movement. The formal political wing of this movement, the Committee of Union and Progress, launched a 1908 revolution.

ANSWER: **Young Turks** [or **Young Turk** Revolution; or **Genc Türkler**]

[10] The Young Turk Revolution established the Ottoman Empire's second constitutional era; the first constitution put an end to this period of moderate reform that lasted from the 1839 Edict of Gülhane (**gool-HAH-neh**) to 1876.

ANSWER: **Tanzimat**

[10] The Committee of Union and Progress led the Ottoman Empire into joining this alliance that opposed the Allied Powers in World War I.

ANSWER: **Central** Powers

<Lalit Maharjan, History - World>

23. At the end of a play, a character in the late stages of this disease mutters "the sun, the sun" as his mother decides whether or not to euthanize him. For 10 points each:

[10] Name this disease that afflicts Oswald Alving.

ANSWER: **syphilis** [congenital neuro**syphilis**; or **syphilis**]

[10] Oswald Alving appears in *Ghosts* by this Norwegian dramatist. Some critics believe that Hedvig's blindness is caused by syphilis in this author's play *The Wild Duck*.

ANSWER: Henrik **Ibsen**

[10] In Ibsen's play *A Doll's House*, Doctor Rank leaves cards marked with this specific symbol to indicate his impending death from "spinal tuberculosis," a disease often held to be syphilis.

ANSWER: **black cross** [prompt on **cross**]

<Joseph Krol, Literature - European after 500 CE>

24. This word names the subfield of anthropology that analyzes human remains to solve criminal cases. For 10 points each:

[10] Give this word that names similar fields of pathology and science, whose practitioners work with DNA evidence.

ANSWER: **forensic** [or **forensic** anthropology; or **forensic** pathology; or **forensic** sciences]

[10] This characteristic can be determined by examining the pubic symphysis (**SIM-fuh-suhs**) in the McKern-Stewart method or by using a wrist x-ray. When presented with a complete skeleton, a forensic anthropologist can often estimate this characteristic by counting the number of bones.

ANSWER: **age** [or how **old** a person is; do not accept "dating"]

[10] This two-word phrase identifies facilities where forensic anthropologists leave corpses exposed to the weather to study their decomposition, such as one established at the University of Tennessee by William Bass in the 1980s.

ANSWER: **body farms**

<Kurtis Droge, Social Science - >

25. These compounds are formed through the refluxing of an alcohol with a carboxylic acid in a reaction named for Emil Fischer. For 10 points each:

[10] Name these compounds with general formula RCOOR' ("**R C O O R prime**"), which are frequently nice-smelling.

ANSWER: **esters** [accept Fischer **esterification**]

[10] Phosphite esters react with an alkyl halide to produce a phosphonate in a form of this reaction usually named for a Russian chemist.

ANSWER: **Arbuzov** reaction [or **Michaelis**-Arbuzov reaction]

[10] Unlike the Fischer esterification, the Arbuzov reaction exemplifies this class of reactions, whose rate is proportional to the concentrations of *both* the nucleophile and the substrate. They usually result in an inversion of configuration at the reactive carbon.

ANSWER: **S<sub>N</sub>2** (**ess en too**) reactions [or **bimolecular nucleophilic substitution**s; prompt on nucleophilic substitution]

<Joseph Krol, Science - Chemistry>

26. This creature has eight heads and eight tails, and extends over eight valleys and eight hills. For 10 points each:

[10] Name this creature that is slain before it can devour the eighth of eight daughters, with that daughter being transformed into a comb for safety.

ANSWER: **Orochi** (**oh-RO-CHEE**) [Yamata-no-**Orochi**]

[10] The serpent Orochi is slain by this Shinto god of the sea and storms after he is banished from heaven for hurting his sister Amaterasu.

ANSWER: **Susanoo** (**soo-sah-NOH-oh**) [**Susanoo**-no-Mikoto]

[10] Susanoo's slaying of Orochi is sometimes compared with the god Teshub's slaying of this serpent of Anatolian legend. While Susanoo used sake to incapacitate Orochi, this serpent is inebriated with wine in a Hittite myth.

ANSWER: **Illuyanka** (**ill-oo-YAN-kah**) [or **Illuyankas**]

<Lalit Maharjan, Mythology - >

27. Peter Bessel claimed he heard this man discuss hiding a corpse in a tin mine or feeding it to alligators in Florida. For 10 points each:

[10] Andrew Newton was allegedly following directions from this politician when Newton shot a Great Dane during a botched attempt to kill Norman Scott.

ANSWER: Jeremy **Thorpe** [John Jeremy **Thorpe**]

[10] Thorpe allegedly ordered the murder of his ex-boyfriend Norman while leading this party during a late 1960s surge in popularity. This party, which last formed the government under David Lloyd George, merged with the Social Democrats in 1988.

ANSWER: **Liberal** Party [or **Liberals**]

[10] Bessel told this newspaper of Thorpe's crimes. This British tabloid printed the headline "MURDERERS; if we are wrong, let them sue us" during a campaign against Stephen Lawrence's killers.

ANSWER: **Daily Mail** [prompt on *The Mail*; do not accept or prompt on "The Mail on Sunday"]

<Lalit Maharjan, History - European>

28. This disease can be diagnosed using an immunoreactive trypsinogen test or a sweat test. For 10 points each:  
[10] Name this disease where thickened mucus leads to bronchial obstruction and pulmonary infections. The Delta-F-508 mutation of this disease's namesake membrane protein is the most common cause of it.

ANSWER: **cystic fibrosis** or **CF**

[10] Cystic fibrosis patients have elevated levels of this ion measured in the sweat test.

ANSWER: **chloride** [or **Cl-** or **Cl-minus**; do not accept "chlorine" or "Cl" or "chlorine ion"]]

[10] This medication is used to stimulate sweating for the sweat test. This medication is also used to treat dry mouth caused by Sjögren syndrome.

ANSWER: **pilocarpine** [or **Salagen**, or **Isopto Carpine**]

<Fredrick Morlan, Science - Biology>

29. An artist of this ethnicity, who only started painting on canvas at age 80, used "dump dot" painting in works like *My Mother's Country*. For 10 points each:

[10] Name this ethnicity of an artist who painted the abstract 1994 work *Earth's Creation* while at the Utopia community.

ANSWER: **Aborigine** [or **Aboriginal** Australian or **Indigenous Australian** or **Native Australian**; accept **Anmatyerre**; prompt on **Australian**]

[10] Emily Kngwarreye's (**ung-WAH-reyz**) work *Earth's Creation* has been compared to the work of this Abstract Expressionist artist, whose painting *Blue Poles* in the National Gallery of Australia displays his characteristic "drip" painting style.

ANSWER: Jackson **Pollock** [Paul Jackson **Pollock**]

[10] In 2015, *Earth's Creation* was exhibited in the display "All the World's Futures" at this event in Italy, which exhibits art every two years.

ANSWER: **Venice Biennale** (**BEE-en-AH-lay**) [or **Venice Biennial** or La **Biennale** di **Venezia**; prompt on **Biennale** or **Biennial**]

<Joseph Krol, Fine Arts - Painting & Sculpture>

30. The UPU (**you pee you**) funds a character with this surname to study in England, where he starts to fall in love with the "outcast" Clara. For 10 points each:

[10] Give this last name of a man who is put on trial for accepting bribes to give out scholarships.

ANSWER: **Okonkwo** (**oh-KONK-woh**) [or Obi **Okonkwo**; or Michael Obiajulu **Okonkwo**]

[10] Obi Okonkwo, like his grandfather Okonkwo, was created by this Nigerian novelist of *No Longer At Ease* and *Things Fall Apart*.

ANSWER: Chinua **Achebe** (**CHIN-wah ah-CHAY-bay**) [or Albert Chinualumogu **Achebe**]

[10] A character called Okonkwo attempts to arrange Aku-nna's (**ah-COO-nah's**) title "Bride Price" in a novel by this other Nigerian author, who depicted Nnu Ego's (**noo EGG-oh's**) disillusionment with childbearing in *The Joys of Motherhood*.

ANSWER: Buchi **Emecheta** (**BOO-chi em-eh-CHET-ah**) [or Florence Onyebuchi **Emecheta**]

<Joseph Krol, Literature - World>

31. Groups are defined as having an identity element, having an inverse for each element, and having a closed group operation with this property. For 10 points each:

[10] Name this property contrasted with commutativity. It means, given the expression " $a$  times  $b$  times  $c$ ," it doesn't matter whether one computes " $a$  times  $b$ " or " $b$  times  $c$ " first.

ANSWER: **associativity** [or **associative** operation]

[10] Unlike a higher-order extension, associativity holds in this algebra, which was the first known noncommutative division algebra. This number system is denoted by boldface H in honor of its discoverer William Rowan Hamilton.

ANSWER: **quaternions** [or **quaternion** number system]

[10] These algebraic structures, which are a special case of magmas, must have an associative operation but not necessarily inverses or an identity, which distinguishes them from monoids and groupoids.

ANSWER: **semigroups** [do not accept or prompt on "groups"]

<Joseph Krol, Science - Math/CompSci/Astronomy/Earth/Any>

32. In October, Rishi Sunak replaced this leader, ending this leader's historically short tenure of fifty days. For 10 points each:

[10] Name this woman who resigned as U.K. Prime Minister in October 2022 amidst concerns over unbacked energy price guarantees.

ANSWER: Liz **Truss** [or Mary Elizabeth **Truss**]

[10] Another cause of Truss's resignation was a "mini-budget" outlining unfunded tax cuts laid out by this Chancellor of the Exchequer, who is of Ghanaian ancestry.

ANSWER: Kwasi **Kwarteng** [Akwas Addo Alfred **Kwarteng**]

[10] In a bizarre stunt livestreamed by the *Daily Star*, this foodstuff dressed in a blonde wig "outlasted" Liz Truss's term in office, as it had not completely spoiled in seven days.

ANSWER: **lettuce** [or head of **iceberg** lettuce; prompt on vegetable]

<Kurtis Droge, Other - Geography/CE/Other>

33. A character describes this concept as "twice blest," as "it blesseth him that gives and him that takes." For 10 points each:

[10] Name this concept that is above the "sceptered sway" of monarchs and "is an attribute to God Himself" in a speech given by the "doctor of laws" Balthasar.

ANSWER: **mercy** [quality of **mercy**]

[10] The "quality of mercy" speech is given by a disguised Portia (**POR-shuh**) in this William Shakespeare play to convince Shylock to be merciful with regard to a "pound of flesh."

ANSWER: *The **Merchant of Venice***

[10] While preparing to give up a pound of flesh in *The Merchant of Venice*, Antonio ironically notes how this concept "shows herself more kind / Than is her custom" to spare him a long life of poverty. In Act III, Hamlet uses the adjective "outrageous" to describe this concept.

ANSWER: **fortune** [do not accept "fate"]

<Joseph Krol, Literature - British>

34. Baltej Dhillon was the first follower of this religion allowed to wear a turban while serving in the Mounties.

For 10 points each:

[10] Name this religion practiced by New Democratic Party leader Jagmeet Singh.

ANSWER: **Sikhism**

[10] Many of Canada's first Sikh immigrants settled in this province, which is now home to the largest Sikh community outside of India. The bomb used to destroy Air India Flight 182 was built and checked into the airline luggage system in this province.

ANSWER: **British Columbia** [prompt on BC]

[10] Gurdit Singh commissioned this Japanese-named steamship to transport mostly Sikh immigrants to Canada in 1914, though its passengers were refused admittance, leading to a riot that killed 22 people.

ANSWER: **Komagata Maru**

<Lalit Maharjan, History - Any>

35. Universities such as Oxford and Cambridge denote the first academic term with this holiday, as it is one of the quarter days. For 10 points each:

[10] Name this Christian holiday held on September 29 in western tradition.

ANSWER: **Michaelmas** (MI-kuhl-muhs)

[10] The traditional meal of goose on Michaelmas may stem from a legend in which this man brought back to life a prince who choked on a goose bone. This man chased some animals into the sea after they attacked him while he was fasting for forty days on a hilltop.

ANSWER: Saint **Patrick**

[10] Michaelmas is traditionally the last day blackberries are picked since legend holds that this fallen angel soiled the fruit after Michael banished him from heaven.

ANSWER: **Lucifer** [or **Satan**; or the **Devil**]

<Lalit Maharjan, Religion - >

36. In a narrative poem by this author, a woman writes a poem in honor of four men who fought over her, one of whom is called "The Unfortunate One" because he was left injured and impotent rather than dead. For 10 points each:

[10] Name this author of "The Ash Tree" and "The Honeysuckle."

ANSWER: **Marie de France** (mah-REE duh FRONCE) [or **Marie of France**; prompt on Marie; prompt on de France] [The first poem is the *lai* "Chaitivel" (SHAY-tih-VEL).]

[10] Apart from writing twelve *lais* (lays), Marie de France made Anglo-Norman translations of many works in this genre, which are listed in the Perry Index. 239 popular 17th-century works in this genre were written by Jean de la Fontaine (ZHAHN duh lah fon-TAIN).

ANSWER: **fables** [or Aesop's **fables**; prompt on short stories; prompt on fairy tales; prompt on folktales; do not accept "fabliau"]

[10] Marie's *lai Bisclavret* (BISS-clah-vray) concerns a man trapped in the form of one of these animals. In an Aesop fable, a boy falsely cries about one of these animals, leading the townsfolk to disbelieve him.

ANSWER: **wolves** [or **wolf**; or **loup**; or **lýkos**; or werew**olf**; or "The Boy Who Cried **Wolf**"]

<Joseph Krol, Literature - European after 500 CE>

37. This name was originally given to a nonexistent particle whose discovery was announced in 1976, on account of statistically-insignificant data. For 10 points each:

[10] Give this name, which now denotes the first state of bottomonium to be discovered.

ANSWER: **upsilon** meson [prompt on Oops-Leon]

[10] The erroneous original upsilon was dubbed the "Oops-Leon" in honor of Leon Lederman, who announced the discovery while working at the Illinois lab named for this Italian creator of the first fission reactor.

ANSWER: Enrico **Fermi** [or **Fermilab** or **Fermi** National Accelerator Laboratory]

[10] The "Oops-Leon"'s mass was announced as being around 6 times 10 to the 9 in terms of this unit often used to describe particle masses, which equals 1.6 times 10 to the minus 19 *joules*.

ANSWER: **electronvolts** [or **eVs**] (Particle masses are often stated in terms of their rest energy via  $E=mc^2$ , hence the units.)

<Joseph Krol, Science - Physics>

38. At the Andry plantation in this state, an uprising partly led by Charles Deslondes (**day-LOND**) began. For 10 points each:

[10] Name this present-day US state which was the site of what is usually considered the largest slave uprising in American history in 1811.

ANSWER: **Louisiana**

[10] The 1811 uprising occurred along a "coast" named for immigrants of this ethnicity. This ethnic group's culture is celebrated in Cincinnati during North America's largest Oktoberfest.

ANSWER: **German** [or **German**-American; or **German** Coast Rebellion]

[10] A media project sponsored by the University of Texas advocated for considering an 1830s uprising among these people as the true largest-ever U.S. slave rebellion. These people, whose identity was partially formed by the survivors of Andrew Jackson's attack on Negro Fort, migrated west under John Horse.

ANSWER: **Black Seminoles** [prompt on Seminoles]

<Lalit Maharjan, History - American>

39. This person sought to "say something positive and constructive" about topics such as matter and knowledge in *The Problems of Philosophy*. For 10 points each:

[10] Name this British philosopher who wrote the *Principia Mathematica* with his teacher Alfred Whitehead.

ANSWER: Bertrand **Russell**

[10] The first chapter of *The Problems of Philosophy* introduces the distinction between these two concepts, "what things seem to be and what they are." These two concepts title a book by the idealist philosopher F.H. Bradley.

ANSWER: **appearance** and **reality** [all acceptable answers may be given in either order, but do not accept or prompt if only one answer is given]

[10] Russell first discusses appearance and reality in passages about the color and reflective properties of one of these objects. Roger Sheperd developed an optical illusion consisting of two of these objects.

ANSWER: **tables** [or **table**tops; or Sheperd **tables**]

<Kurtis Droge, Philosophy - >

40. A track from this film by Luiz Bonfá became known in the US as "A Day in the Life of a Fool." For 10 points each:

[10] Name this film that opens with the song "A Felicidade" and ends with a medley featuring guitarist Bona Sete.

ANSWER: **Black Orpheus**

[10] The soundtrack for *Black Orpheus* was co-composed by Luiz Bonfá and Antônio Carlos Jobim (jo-BEEM), both practitioners of this country's bossa nova style of music.

ANSWER: **Brazil** [Federative Republic of **Brazil**; or *República Federativa do Brasil*]

[10] This jazz pianist's breakthrough was his album *Jazz Impressions of Black Orpheus*, which included his hit song "Cast Your Fate to the Wind." He is better known for his music based on the *Peanuts* comic strip, such as "Linus and Lucy," which first appeared in *A Charlie Brown Christmas*.

ANSWER: Vince **Guaraldi** [or Vincent Anthony **Guaraldi**; or Vincent Anthony **Dellaglio**]

<Lalit Maharjan, Fine Arts - Other Fine Arts>

<<<DO A SCORE CHECK>>>

41. As children, this man and his brother Flavus were sent to Rome as hostages, where they were both raised as Roman nobles and likely helped suppress Pannonian and Illyrian revolts. For 10 points each:

[10] Name this Germanic warrior who masterminded the ambush of three Roman legions in 9 AD after being stationed at the Rhine.

ANSWER: **Arminius** [or **Armenus**; or **Arminio**; or **Hermann** der Cherusker; or **Hermann** der Cheruskerfürst; or **Hemran** the Cheruscan; or **Herman** the German]

[10] Arminius' success at the Battle of Teutoburg Forest led this first Roman emperor to shout "Give me back my legions!"

ANSWER: **Augustus** Caesar [or Gaius **Octavius**; or **Octavian**]

[10] The three Roman aquilae (AA-kwil-ai) standards lost at Teutoburg Forest were all recovered by 41 and joined the three aquilae returned by the Parthians on display in this building patronized by Augustus in 2 BC.

ANSWER: **Temple of Mars Ultor** [or **Temple of Mars the Avenger**; prompt on **Temple of Mars**]

<Lalit Maharjan, History - Any>

42. This poem instructs "Let the wenches dawdle in such dress / As they are used to wear" and "let the boys / Bring flowers in last month's newspapers." For 10 points each:

[10] Name this poem about an event that most critics such as Helen Vendler have identified as a funeral.

ANSWER: "The **Emperor of Ice-Cream**"

[10] "The Emperor of Ice-Cream" is by this American poet of "Thirteen Ways of Looking at a Blackbird."

ANSWER: Wallace **Stevens**

[10] This Stevens poem appears shortly after "The Emperor of Ice-Cream" in the collection *Harmonium*. "The houses are haunted / By white night-gowns" begins this poem, in which a drunk "old sailor" dreams of catching tigers "in red weather."

ANSWER: "**Disillusionment of Ten O'Clock**"

<Joseph Krol, Literature - American>

43. This rule forbids transitions between two *gerade* (geh-RAH-duh) states. For 10 points each:

[10] Name this selection rule that forbids parity-conserving transitions in centrosymmetric molecules.

ANSWER: **Laporte** selection rule

[10] The Laporte rule is commonly applied to transitions between two of these orbitals, whose quantum number *l* is 2, and thus lies between those of p and f orbitals.

ANSWER: **d** orbitals

[10] In practice, Laporte's rule applies especially well to complexes with this geometry, which are exemplified by sulfur hexafluoride.

ANSWER: **octahedral** geometry

<Joseph Krol, Science - Chemistry>

44. One of this person's Great Events is when he emerged painlessly from his mother's side in a garden. For 10 points each:

[10] Name this person who took seven steps northwards immediately after his birth.

ANSWER: **Buddha** [or **Siddhartha** Gautama or Siddhartha **Gautama**]

[10] In another of the Eight Great Events of the Buddha's life, this brother-in-law and cousin of Buddha attempted to kill him by having the drunken elephant Nalagiri trample him to death.

ANSWER: **Devadatta**

[10] A third of the Buddha's Great Events is when he was offered this substance by a monkey. In the Book of Matthew, John the Baptist survives in the desert by eating locusts and this substance.

ANSWER: **honey** [or wild **honey**]

<Fredrick Morlan, Religion - >

45. This composer used an ostinato in 5/8 time to depict water lapping the shores of the title location of his tone poem *The Isle of the Dead*. For 10 points each

[10] Name this Russian composer of *Rhapsody on a Theme of Paganini*.

ANSWER: Sergei **Rachmaninoff** [Sergei Vasilyevich **Rachmaninoff**]

[10] This Rachmaninoff piece begins with the soloist playing chords evoking the tolling of bells, for eight bars, before the orchestra enters. This C-minor piece was written after Rachmaninoff took a three-year break from composing.

ANSWER: **Piano Concerto No. 2** in C minor, Opus 18 [accept answers indicating a **piano concerto** and it being his **second**; prompt on **piano concerto**]

[10] This Austrian contemporary of Rachmaninoff's made a violin and piano transcription of that concerto's second movement, which he titled "Preghiera." (preg-YAIR-ah) Rachmaninoff had earlier made a piano transcription of this man's violin and piano piece "Liebeslied."

ANSWER: Fritz **Kreisler**

<Fredrick Morlan, Fine Arts - Classical Music>

46. This poet described the "almost-instinct" that "what will survive of us is love" in his poem "An Arundel Tomb." For 10 points each:

[10] Name this British author who used obscenities in poems such as "This Be The Verse."

ANSWER: Philip **Larkin** [Philip Arthur **Larkin**]

[10] This Larkin poem, which invokes the sexual revolution with its description of a young woman who is "taking pills or wearing a diaphragm," ends by describing the "deep blue air, that shows / Nothing, and is nowhere, and is endless."

ANSWER: "**High Windows**"

[10] The speaker of this Larkin poem rents a dingy room once occupied by the deceased title character, noting that "how we live measures our own nature" and that the title character had "no more to show / Than one hired box."

ANSWER: "**Mr Bleaney**"

<Joseph Krol, Literature - British>

47. Stale bread topped with fruit scavenged near a shoreline seemingly fulfilled a prophecy regarding this action. For 10 points each:

[10] The harpy queen Celaeno (**suh-LEE-noh**) foretold that a group of people will settle when they are driven to do this specific action.

ANSWER: **eating their tables** [or **consume** or any synonym in place of "eat"; prompt on **eating**]

[10] Celeano made her prediction to the group led by this hero. This hero had a brief relationship with Dido (**DIE-doh**) while voyaging to Italy, where his descendants founded Rome.

ANSWER: **Aeneas** (**uh-NEE-us**)

[10] To delay their settlement in the region, Juno sends Alecto, a member of this group, to rile up the natives against Aeneas.

ANSWER: **Furies** [or **Erinyes** (**air-IN-ee-eez**); or **Erinyes**; or **Eumenides**; do not accept "Dirae"]

<Lalit Maharjan, Mythology - >

48. This woman's brother Ngola Mbani (**in-GOH-luh im-BAH-nee**) ordered her sterilized and her son executed. For 10 points each:

[10] Name this 17th-century queen of Ndongo (**in-DON-goh**), in a territory later renamed for her brother as Angola. This queen conquered Matamba in 1633.

ANSWER: **Nzinga** (**in-ZIN-guh**) of Ndongo and Matamba [or **Nzinga** Ana de Sousa Mbande or Nzinga Ana **de Sousa** Mbande]

[10] Nzinga clashed with this colonial power, from which Angola and Mozambique became independent in 1975.

ANSWER: **Portugal** [or **Portuguese** Empire]

[10] Ndongo was formally a vassal state of this long-lasting Angolan kingdom, whose similarly named king Nzinga a Nkuwu (**in-ZIN-guh ah in-KOO-woo**) converted to Christianity and was baptized as João I (**ZHOO-ow the first**) in 1491.

ANSWER: Kingdom of **Kongo** [or **Kongo** dya Ntotila or Wene wa **Kongo** or Reino do **Congo**]

<Lalit Maharjan, History - World>

49. This composer's Opus 33 quartets include ones nicknamed "How Do You Do" and "The Joke." For 10 points each:

[10] Name this so-called "Father of the String Quartet" who also wrote a symphony nicknamed "Surprise."

ANSWER: Joseph **Haydn** (HAI-den) [Franz Joseph **Haydn**]

[10] Haydn's Opus 33 quartets are sometimes named for this country, because they were written for one of its future monarchs. A count from this country commissioned and names Beethoven's Opus 59 string quartets.

ANSWER: **Russia** [or **Russian Empire**; accept "**Russian**" Quartets]

[10] In his book *The Classical Style*, this pianist and author claimed that one can find "the true invention of classical counterpoint" in Haydn's Opus 33 quartets. This author devoted part of his book *The Romantic Generation* to the study of musical fragments.

ANSWER: Charles **Rosen** [Charles Welles **Rosen**]

<John Lawrence, Fine Arts - Classical Music>

50. This organelle's double membrane contains pore complexes with FG repeats. For 10 points each:

[10] Name this organelle only found in eukaryotic cells, which contains DNA.

ANSWER: **nucleus**

[10] Transport across the nuclear pore complex requires the protein Ran, which binds to this molecule. This molecule is hydrolyzed by G proteins.

ANSWER: **GTP** [or **guanosine triphosphate**; do not accept "guanine", "guanosine", "GDP", or "guanosine diphosphate"]

[10] One method of studying nuclear transport is using a fusion assay, which creates these cells with two genetically distinct nuclei. Fungi create these structures during sexual reproduction.

ANSWER: **heterokaryon** [or **heterokaryotic** cell; prompt on **syncytium**]

<Eric Mukherjee, Science - Biology>

51. Microsoft co-founder Paul Allen posited that a "complexity brake" would prevent this point from being reached. For 10 points each:

[10] Name this hypothetical point in the near future, where the rapid progress of machine learning would lead to an AI that surpasses human intelligence.

ANSWER: technological **singularity** [prompt on **transhumanism**; prompt on **posthumanism**; prompt on **superintelligence**]

[10] This futurist who wrote *The Age of Spiritual Machines* put forth a law of accelerating returns about the rate of technological change in the book *The Singularity Is Near*.

ANSWER: Ray **Kurzweil** (KURZ-well)

[10] In *The Singularity Is Near*, Kurzweil claims that technological evolution is not linear but can be mapped using these things, which are sets of practices that characterize a scientific discipline. Thomas Kuhn classified scientific revolutions as "shifts" named for these things.

ANSWER: **paradigms** [or **paradigm** shifts]

<Lalit Maharjan, Philosophy - >

52. Answer the following about thyristors (**"THIGH"-riss-turz**), for 10 points each:

[10] Thyristors are a type of bistable switch which remain on once a "latching" value of this quantity is exceeded. In ohmic (**OH-mik**) devices, this quantity times resistance gives the voltage.

ANSWER: **current** [or latching **current**; prompt on **I**]

[10] Standard thyristors have this number of p-n (**pee en**) junctions. Standard bipolar junction transistors have both this number of semiconductor *layers* and this number of terminals.

ANSWER: **three** [Thyristors are often analogized to two back-to-back bipolar junction transistors.]

[10] Circuits can be protected from a surge using a "crowbar circuit," in which a thyristor is often paired with one of these devices. These devices exploit a namesake effect under reverse bias, in which electrons tunnel from the valence to the conduction band across a *narrow* depletion region, unlike a similar device.

ANSWER: **Zener diodes**

<Joseph Krol, Science - Physics>

53. Kenneth Clark directed a controversial 1936 restoration of this artist's painting *Philip IV (the fourth) in Brown and Silver*. For 10 points each:

[10] Name this Spanish artist, who included a portrait of the Infanta Margaret Theresa in his painting *Las Meninas* (**meh-NEE-nas**).

ANSWER: Diego **Velázquez** (veh-LAHZ-kez) [Diego Rodríguez de Silva y **Velázquez**]

[10] Velázquez's most celebrated portrait is perhaps his 1650 depiction of this member of the clergy, which formed the basis for Francis Bacon's series of "screaming" holders of a certain title.

ANSWER: Pope **Innocent X** ("the tenth") [or Giovanni Battista **Pamphilj**; prompt on pope or pontiff or Bishop of Rome by asking "Which pope?"]

[10] The portrait of Innocent X was painted in the same year that Velázquez performed this action, which provided the means for another artist to have a career painting such works as his own portrait of Philip IV and a 1661 *Calling of St. Matthew* held in the Prado.

ANSWER: **freeing** Juan de **Pareja** from slavery [or **liberating** Juan de **Pareja**; or **emancipating** Juan de **Pareja**; or **manumitting** Juan de **Pareja**; prompt on freeing, liberating, emancipating, or manumitting by themselves by asking "Whom did he free?"]

<Joseph Krol, Fine Arts - Painting & Sculpture>

54. This magazine published the story "A House to Let," whose four collaborating authors included Wilkie Collins and Adelaide Anne Proctor. For 10 points each:

[10] Name this weekly magazine published in the 1850s, before it was directly replaced by its successor *All the Year Round*.

ANSWER: **Household Words**

[10] This editor of *Household Words* and writer of *Hard Times* was one of the co-authors of "A House to Let."

ANSWER: Charles **Dickens** [Charles John Huffam **Dickens**]

[10] The final author of "A House to Let" was this author of a biography of Charlotte Bronte, who serialized her novels *Cranford* and *North and South* in *Household Words*.

ANSWER: Elizabeth **Gaskell** [Elizabeth Cleghorn **Gaskell** or Elizabeth Cleghorn **Stevenson**]

<Joseph Krol, Literature - British>

55. Reuben Thwaites wrote about an Iroquois practice in which this object was hurled "far into the depths of the earth." For 10 points each:

[10] Name this small ax-like tool. An English idiom about "burying" this object means to make peace.

ANSWER: **hatchet**

[10] Samuel Sewall wrote of the Mohawk burying two hatchets during a meeting in this city. A political machine whose major centers were mayor Erastus Corning and Democratic boss Daniel O'Connell controlled this city from 1921 to 1983.

ANSWER: **Albany**, New York

[10] Article 11 of the Treaty of Hopewell designating this people's boundary included the line "the hatchet shall be forever buried." The largest group of these people, led by Principal Chief Chuck Hoskin, has opposed governor Kevin Stitt over issues such as the *McGirt* decision confirming their right to prosecute crimes.

ANSWER: **Cherokee** Nation

<Lalit Maharjan, History - American>

56. For 10 points each, answer the following about literature depicting the Haitian Revolution.

[10] The slave Tété (**TAY-tay**) flees to New Orleans during the Haitian Revolution in *Island Beneath the Sea*, a 2009 novel by this Chilean author of *The House of the Spirits*.

ANSWER: Isabel **Allende** (**aye-END-ay**) [or Isabel Angélica **Allende** Llona]

[10] The aftermath of the Haitian Revolution is depicted in *The Tragedy of King Christophe*, a 1963 play by this author. This author from Martinique wrote a postcolonial reinterpretation of *The Tempest* titled *A Tempest*.

ANSWER: Aimé **Césaire** (**ay-MAY say-ZAIR**)

[10] In the influential preface to *The Kingdom of This World*, Alejo Carpentier (**ah-LAY-ho car-pen-tee-AIR**) links visiting historic sites from the Haitian Revolution to literature depicting this concept. The preface ends by stating "But what is the history of America if not a chronicle of *this concept* in the real?"

ANSWER: **marvelous** [or **marvelous** reality; or the **marvelous** real; or **maravilloso** (**ma-ra-bee-OH-so**); do not accept "magic" or "magical realism"]

<Joseph Krol, Literature - World>

57. For 10 points each, answer the following about the recently released programming language Carbon.

[10] The language was created by this company, following in the footsteps of languages like Go and Dart. The PageRank algorithm gave this company its edge over competitors like Yahoo!

ANSWER: **Google** [or **Alphabet** Inc.]

[10] Carbon was designed to be a successor to this language. Namespaces like one abbreviated "s-t-d" are used to provide scope to identifiers in this object-oriented language.

ANSWER: **C++** (**c-plus-plus**) [reject "C"]

[10] Carbon's github repo (**get-hub ree-po**) identifies the primary pitfall of C++ as the accumulation of this two-word term used in software development to describe practices that speed up delivery at first but must be refactored later.

ANSWER: **technical debt** [or **tech debt**; or **code debt**; prompt on **debt**]

<Lalit Maharjan, Science - Math/CompSci/Astronomy/Earth/Any>

58. Chuck Marohn remarked how in this place, Americans pay "insane amounts of money" to experience the "best middle-class transit." For 10 points each:

[10] Name this place that includes a planned "experimental city" in which monorails would have connected rings of development, which became the theme park of EPCOT.

ANSWER: **Disney World** [or Walt **Disney World** Resort; **antiprompt** on Tomorrowland; do not prompt on "Disneyland"]

[10] Walt Disney's approach to "bottom-up" urban planning is similar to that of this author of *The Death and Life of Great American Cities*.

ANSWER: Jane **Jacobs** [or Jane **Butzner**]

[10] The Disney company created the city of Celebration, Florida near the resort to exemplify this two-word ideology, which advocates for walkable neighborhoods and the close proximity of housing to shopping.

ANSWER: **New Urbanism** [do not prompt on "urbanism"]

<Lalit Maharjan, Social Science - >

59. Jewish architects from this art school who were fleeing Nazi persecution designed many buildings in Tel Aviv, which has the most buildings in the world in this school's International Style. For 10 points each:

[10] Name this art school in Weimar, which was founded by Walter Gropius (**GROH-pee-us**) in 1919. Its name is German for "building house."

ANSWER: **Bauhaus** [or *Staatliches Bauhaus*]

[10] A section in Tel Aviv with this two-word English name is a UNESCO World Heritage site with over 4,000 Bauhaus buildings. An architectural project in Jackson Park headed by Daniel Burnham also had this name.

ANSWER: **White City**

[10] Israeli architect Sam Barkai was influenced by Bauhaus and the ideas of this architect under whom he trained. This architect designed the Open Hand Monument in India.

ANSWER: **Le Corbusier** (**lay cor-b'yoo-zee-AY**) [or Charles-Édouard **Jeanneret**]

<Lalit Maharjan, Fine Arts - Other Fine Arts>

60. Edward Shorter attributed a "delusion" about being made of this material to its relative novelty in the Middle Ages and early modern Europe. For 10 points each:

[10] Name this material, whose "stained" form was included in many European churches.

ANSWER: **glass** [or stained **glass**; or **glass** delusion]

[10] This king reinforced his clothes with iron rods due to the glass delusion he suffered that caused him to be called "The Mad." This king signed the Treaty of Troyes (**twah**) which attempted to disinherit his Valois (**val-wah**) heirs and make Henry V (**the fifth**) of England the next king of France.

ANSWER: **Charles VI** (**the sixth**) [or **Charles the Beloved**; or **Charles le Bien-Aimé**; prompt on Charles; prompt on Charles the Mad; prompt on Charles le Fou]

[10] Princess Alexandra of this kingdom believed she once swallowed a glass grand piano that was in danger of shattering inside her. The last Wittelsbach (**VIT-ulz-bahk**) monarch of this kingdom abdicated in the Anif (**AH-nif**) Declaration.

ANSWER: Kingdom of **Bavaria**

<Lalit Maharjan, History - European>

<<<DO A SCORE CHECK>>>

<<<READ THE EXTRAS FOR EVERYONE>>>

## Extras

X1. In a legend, this man threw a haughty author's pile of books into a pool of water, then, when the books were not damaged, he told the haughty author "this is what you cannot understand." For 10 points each:

[10] Name this author of a book generically called the *Discourse* or *Conversations*, who taught a pupil in seclusion for 40 days.

ANSWER: **Shams** of Tabriz [or **Shams** Tabrizi; or **Shams**-i-Tabrizi; or **Shams** al-Tabrizi; or **Shams** al-Din Mohammad] [The book is the *Maqalat* (MAK-ah-lat).]

[10] Shams al-Tabrizi was the teacher of this poet, who dedicated his *Divan* to him. This poet's *Divan* is among his many works dubiously translated by Coleman Barks.

ANSWER: **Rumi** (ROO-mee) [or Jalal ad-Din Muhammad **Rumi**; or Jalal ad-Din Muhammad **Balkhi**; or **Mawlana**; or **Mevlana**; or **Mevlevi**]

[10] Rumi and Shams both wrote primarily in this language, which was also used by Omar Khayyam (kah-YAAM).

ANSWER: **Persian** [or **Farsi**; or New **Persian**; or Early New **Persian**; or Modern **Persian**]  
<Joseph Krol, Literature - World>

X2. In 1984, T. Boone Pickens's small company in this industry, Mesa, began a series of profitable corporate raiding "greenmail" operations against larger competitors. For 10 points each:

[10] Name this industry in which a 1998 merger between Exxon and Mobil created the then-largest company in the world.

ANSWER: **oil** [or **petroleum**; or **gasoline** industry]

[10] Carl Icahn (eye-KAHN) became prominent as corporate raider after a takeover of this company in 1985. Howard Hughes fought with Jack Frye as owner of this "Big Four" company from 1939 to 1960.

ANSWER: **TWA** [or **Trans World Airlines**]

[10] An early corporate raid was Victor Posner's takeover of the Sharon Corporation, which produced this material. Gary, Indiana was a corporate town created to produce this material.

ANSWER: **steel**

<Lalit Maharjan, History - American>

X3. Gene frequency should increase when the product of relatedness and reproductive benefit is greater than the cost of altruism. For 10 points each:

[10] Name the inequality stated above, named for an evolutionary biologist.

ANSWER: **Hamilton's rule** [or **Hamilton's inequality**]

[10] Hamilton's rule is used to quantify this altruistic behavior, where organisms enhance the reproductive success of their relatives.

ANSWER: **kin selection** [or **kinship selection**]

[10] Kin selection is high in this species of non-human primate found in Africa, who have been shown to have different alarm calls corresponding to different predator sightings.

ANSWER: **vervet** monkey

<Briana Magin, Science - Biology>

X4. The name of a popular elephant is misspelled in this piece's second movement, "Jimbo's Lullaby." For 10 points each:

[10] Name this piano collection, whose six movements also include "Serenade for the Doll" and "Golliwog's Cakewalk."

ANSWER: **Children's Corner** suite

[10] This French composer of the *Children's Corner* suite included a movement titled "Clair de Lune" in his *Suite Bergamasque*.

ANSWER: Claude **Debussy** [Achille-Claude **Debussy**]

[10] The *Children's Corner* suite opens with this arpeggio-filled C-major movement, which satirizes a collection of piano études by Carl Czerny (**CHURN-ee**).

ANSWER: "**Doctor Gradus ad Parnassum**" [do not accept or prompt on "Gradus ad Parnassum"]

<Lalit Maharjan, Fine Arts - Classical Music>

X5. About a third of the Awa (**ah-wah**) people have this status, which is jeopardized by expanding logging and mining projects. For 10 points each:

[10] Name this status held by about a hundred groups in the world, including the Sentinelese of India.

ANSWER: **uncontacted** [or **uncontacted** peoples; or **uncontacted** tribes; or **isolated** tribes; or indigenous peoples living in voluntary **isolation**]

[10] The majority of the world's groups of uncontacted peoples live in this country, which contains most of the Amazon Basin.

ANSWER: **Brazil**

[10] This resident of Brazil's western Rondônia (**ran-DOH-nee-ah**) state lived alone in isolation after the rest of his people were killed by miners in the 1990s. He was found dead covered in macaw feathers by a Brazilian indigenous affairs agent in August 2022.

ANSWER: The **Man of the Hole** [or the **Tanaru** Indian]

<Kurtis Droge, Other - Geography/CE/Other>