



NSC 2019 - Round 14 - Tossups

This round is sponsored by Peter Schmidt

1. In a preface, the author credits a "puckish," "malicious," "nimble little maidservant" with introducing him to this title group. The most talkative member of this group is a man who is possessed by a "Demon of Experiment" and who praises Sancho Panza and Don Abbondio for being in a "fantasy" that can make them live forever. A manager laments "I've lost a whole day over" these characters at the work's end, during which a silent one of them drowns in a (*) fountain, and another shoots himself with a revolver. These characters befuddle a group of actors by interrupting a rehearsal of the play *Mixing it Up*. "The Father," "The Stepchild," and "The Mother" constitute one half of, for 10 points, what title group of characters in an Absurdist drama by Luigi Pirandello?

ANSWER: The **Six** Characters [accept **Six Characters in Search of an Author** or **Sei** or **Sei personaggi in cerca d'autore**; prompt on **Characters**]

<Jose, Literature - European>

2. This philosophy is rooted in the concepts of allegiance and authority by Roger Scruton, who wrote a book about "How to" espouse it. A thinker considered the "father" of this philosophy once stated "the individual is foolish . . . the species is wise" in a speech to the House of Commons. This philosophy is articulated in a book claiming "a state without some means of change" cannot be subject to preservation. Russell Kirk claimed that this movement represents a belief in (*) "order" rooted in "tradition," and is considered to be a member of its "classical" or "paleo-" school. The author of *Reflections on the Revolution in France*, Edmund Burke, is considered the "father of," for 10 points, what political philosophy that is often contrasted with liberalism?

ANSWER: **conservatism** [accept word forms; accept paleo**conservatism** or classical **conservatism**]

<Jose, RMP - Philosophy>

3. This ruler ordered the planting of banyan trees at regular intervals along roads to provide shelter. This ruler threatened the "forest people" with violence for their rebelliousness, but proudly claimed that only "two peacocks and a deer" were eaten at the feasts prepared by his kitchens. He suggested that conquest by virtue was the "best conquest" and recorded his peaceful relations with the neighboring Seleucid king (*) Antiochus in documents which repeatedly call him "beloved of the gods." Four lions sit atop the pillar this ruler had built in Sarnath. In one of his rock edicts, he claimed to be "deeply pained" by slaughter during the conquest of Kalinga. For 10 points, name this Buddhist convert and third ruler of the Mauryan empire.

ANSWER: **Ashoka** the Great [accept **Ashoka** Maurya or **Asoka**]

<Alston, History - World>

4. Near the end of his life, this scientist wrote a set of "Messages from the Unseen World," one of which describes "Hyperboloids of wondrous light" that might "play out God's holy pantomime." This man built on the work of Kurt Gödel in a 1936 paper that sought to solve David Hilbert's *Entscheidungsproblem* ("ent-SHY-dungz-problem") by introducing the concept of "effectively computable" procedures. This scientist showed an (*) algorithm does not exist which determines whether or not an arbitrary algorithm would terminate for a given input, thus providing a negative answer to the halting problem. He names a thesis with Alonzo Church about the power of various models of computation. For 10 points, name this scientist who modeled computation with his namesake "machines."

ANSWER: Alan **Turing** [accept Alan Mathison **Turing**]

<Jose, Science - Computer Science>

5. In 1734, the body of a man who died around 300 BCE was found in an ancient source for this resource in Hallstatt, Austria. A below-ground merry-go-round was built at a site that's been used to obtain this resource since Roman times in Turda, Romania. English cities such as Leftwich get their suffix from trading this resource, and a nuclear waste repository in Remlingen, Germany was formerly a mine for it. A large mine for this resource in Khewra, Pakistan was supposedly discovered when (*) Alexander the Great's horse started licking the ground. Jordan's Arab Potash Company is located on a body of water noted for its high concentrations of this substance. For 10 points, name this mineral that allows people to float easily in the Dead Sea.

ANSWER: **salt** [or table **salt**; or **NaCl**; or **sodium chloride**; or **rock salt**; or **halite**; accept **potash** before mentioned]

<Bentley, Geography - Europe>

6. A man laments that he has no joy despite holding this title for six years due to his guilt over a child's death in a bass aria usually called that man's "monologue." In the epilogue of another opera titled for this position, people walk across a plaza singing a patriotic hymn beginning "Glory, glory!" The "holy fool's aria" and a drinking song by the vagabond Varlaam feature in an opera which ends with the title holder of this position (*) abdicating in favor of his son Theodore. A number of Poles are led into a blizzard by the hero Susanin, who thus gives his "life for" a man with this title, in the best-known opera of Mikhail Glinka ("MEE-hyle GLEEN-kah"). For 10 points, give this title held by the main character of Modest Mussorgsky's *Boris Godunov* ("bah-REES gah-doo-NOFF").

ANSWER: **tsars** [accept **czars**; accept *A Life for the **Tsar*** or *Zhizn' za **tsarya***; prompt on Russian **king** or Russian **emperor**; do not accept or prompt on "ruler" or "lord" or less specific answers]

<Alston, Fine Arts - Opera>

7. At the conclusion of one of her memoirs, this author catches a snapping turtle and ponders the meaning of life when it does not die. The film *Julia* was based on the possibly fraudulent section of a memoir by this writer. When she died, this author was suing Mary McCarthy for saying that "every word [this author] writes is a lie" on national television. The memoir *Pentimento* describes this author's romantic relationship with the mystery writer (*) Dashiell Hammett and her appearance before HUAC. She wrote a dramatic work in which a woman blackmails her siblings for ownership of a cotton mill and lets her husband Horace die of a heart attack to increase her wealth. For 10 points, name this author who depicted the cunning Regina Hubbard in her play *The Little Foxes*.

ANSWER: Lillian **Hellman** [accept Lillian Florence **Hellman**]

<Jose, Literature - American>

8. Rapid changes in this vector quantity can be measured with a hot wire probe. The material derivative of a field is equal to the partial time derivative of that field, plus the gradient of that field dotted with this quantity. Due to the principle of mass continuity, this quantity for an incompressible fluid in a pipe increases at choked areas. A curve that is instantaneously tangent to this quantity at every point is called a (*) streamline. The curl of this quantity's vector field is the vorticity. If potential energy is held constant, a decrease in pressure leads to an increase in this quantity according to Bernoulli's principle. For 10 points, name this time derivative of position, which is often measured in meters per second.

ANSWER: flow velocity [do not accept or prompt on "speed"]

<French, Science - Physics>

9. This object was given the codename Mathilda by the Nazis who transported it to Berlin during World War II. Andrew Ducarel ("doo-cuh-RELL") rediscovered the importance of this object in 1752; it had previously been displayed for eighty days each July in its namesake cathedral. It was brought to Paris by Napoleon I in preparation for an 1803 invasion. 41 griffins appear in this work, as does the caption "ET FUGA VERTERUNT (*) ANGLI." The largest person in this work, Odo, probably commissioned it. A caption in Latin reading, "These people marvel at the star" in this work accompanies a depiction of Halley's Comet. This work depicts a king being killed by an arrow into his eye. For 10 points, name this embroidered cloth that records the Battle of Hastings.

ANSWER: Bayeux Tapestry [accept Bayeux Embroidery or Tapisserie de Bayeux or La telle du conquest or Tapete Baiocense]

<Bentley, History - European>

10. This man left half his army to set up a colony on Ceos after fathering Euxantius ("you-ZAN-tee-us") with Dexithea, the sole surviving Telchine ("tell-KYE-nee"). He locked the seer Polyidus ("poly-EYE-dus") in a wine cellar until he found a way to revive this man's son Glaucus, who had drowned in cask of honey. The daughters of King Cocalus scalded this man to death after he arrived in Sicily offering a reward to anyone who could thread a seashell. This man's son (*) Androgeus ("ann-DROH-jee-us") was murdered after winning a set of games hosted by Aegeus ("EE-jee-us"); in retribution, he demanded a yearly tribute from Athens of fourteen youths. After his wife Pasiphaë ("pah-SIF-ah-ee") gave birth to a monstrous son, this king forced Daedalus to construct a prison for it. For 10 points, name this king of Crete who commissioned the Labyrinth.

ANSWER: Minos

<Carson, RMP - Greco-Roman Mythology>

11. This artist spent his adolescence polishing his father's mirrors; shortly afterwards he joined his first apprenticeship, and changed his name for the first of 30 times he would do so in his life. He detailed his technique in the art manual *Quick Lessons in Simplified Drawing*. This artist's masterpiece was made using the "brocade" ("bruh-KADE") technique, which allowed for the usage of many distinct colors. In one of his works, this artist depicted a (*) cooper making a large barrel; that barrel frames the title object in the background. Another of his works, *Fine Wind, Clear Morning*, is alternatively titled for the red mountain in it. A print called *The Great Wave Off Kanagawa* was made by, for 10 points, what Japanese artist who created the *Thirty-Six Views of Mount Fuji*?

ANSWER: Katsushika Hokusai [accept either underlined portion]

<Bentley, Fine Arts - Painting>

12. The genus *Condyllostoma* unusually does not use these sequences in its genome. In 2013, George Church's lab engineered a strain of *E. coli* that lacks the rarest example of these sequences, which is useful, since bioorthogonal chemistry often adds azide handles by suppressing one of them called amber. In most genes, these sequences are upstream of the poly-U tract but immediately downstream of the (*) C-terminus, and likely evolved to prevent frameshifting. Upon encountering these sequences at the A site, release factors hydrolyze the nascent polypeptide. When these sequences are accidentally introduced, nonsense mutations occur. In DNA, they are TAA, TAG, and TGA. For 10 points, name these triplets that signal to the ribosome that translation should end.

ANSWER: **stop** codons [accept **termination** codons, but do not accept or prompt on "terminators"]
<Silverman, Science - Biology>

13. Madame Restell made her fortune offering this service in New York prior to her 1878 arrest. In 1953, Katharine Dexter McCormick wrote a \$40,000 check to Gregory Pincus to help him develop a new way to provide this service. Dr. C. Lee Buxton was fined \$100 for violating a law prohibiting these services; in the decision, Justice William O. Douglas ruled that "penumbras" in the Bill of Rights invalidated a (*) Connecticut law banning the sale of devices that provided this service. A woman who founded a league named for this service was a frequent target of Anthony Comstock and wrote "What Every Mother Should Know." For 10 points, Margaret Sanger founded Planned Parenthood, an organization that provides the pill as part of what type of service?

ANSWER: **birth control** [accept **abortion** or **contraceptives** or **abortifacients**; accept equivalents like **preventing pregnancy** or **ending pregnancy**; accept birth **control pill** before mentioned; prompt on the **pill** before mentioned]
<Bentley, History - American>

14. In early editions, this character's name was listed as "Corambis." In one scene, this man entreats "costly thy habit as thy purse can buy" for "the apparel oft proclaims the man." In a long speech, he notes that "borrowing dulls the edge of husbandry" before telling his son "my blessing season in thee." This character employs a servant named Reynaldo, who spies on his son for him. This character's final lines are "Oh, I am slain," which he utters after the protagonist (*) stabs him when he is hiding behind an arras. This man's advice includes the line "to thine own self be true," as well as the observation that "brevity is the soul of wit." He warns King Claudius that his own "noble son is mad." For 10 points, name this father of Laertes and Ophelia, a long-winded advisor in the play *Hamlet*.

ANSWER: **Polonius**
<Jose, Literature - British>

15. The usage of these things in Wales was the subject of an early participant observation study by Jock Young. The popularity of these things is discussed with "labelling theory" in Howard Becker's book *Outsiders*. Perceptions over how black and white people use these things differently underlies the government's abuse of "intrusions" and "privacy violations" according to Michelle Alexander's book *The New (*) Jim Crow*. The so-called "Len Bias Law" centered on the usage and sale of these things. Despite the recommendations of the Shafer Commission, an oft-used example of these things still remains on "Schedule One." The U.S. has "mandatory minimum" laws as part of its effort to wage a "War On," for 10 points, what things, whose "recreational" types include marijuana?

ANSWER: **drugs** [accept recreational **drugs**; accept **cannabis** or **cocaine** or **crack**; accept **marijuana** before it is mentioned]
<Jose, Social Science - Sociology>

16. A businessman best known for founding a brewery in this city built the steamship *Accomodation* and his country's first public railway. A biosphere in this city was originally built with the theme "Man and His World." Fans of a sports team in this city smashed car windows and pelted the league president with eggs during the 1955 Richard Riot. For an event in this city, the first structure of its kind consisting of stacked prefabricated concrete blocks was erected by architect (*) Moshe Safdie. A 1987 agreement named for this city set 2013 as the date to phase out HCFCs. This city hosted the 1967 World's Fair and a ruinously expensive Summer Olympics under Mayor Jean Drapeau. For 10 points, name this most populous Francophone Canadian city.

ANSWER: Montreal, Quebec

<Bentley, History - Cross, Historiography, and Miscellaneous>

17. In a play based on this country's history, a taped confession corrects the name "Bud" to "Stud" from an earlier story, proving the confessor's guilt. In that play based on this country's history, a woman discovers that her husband's houseguest is the doctor who had raped her years ago. A poet from this country described going "between the streets and the air", "like an empty net". This country inspired the setting of Ariel Dorfman's (*) *Death and the Maiden*. A poet from this country wrote a poem set at "the hour of the spell that blazed like a lighthouse", in which he repeats "in you everything sank!" That poet from this country wrote the collection *Twenty Love Poems and a Song of Despair*. For 10 points, name this home country of Pablo Neruda.

ANSWER: Republic of Chile

<Rosenberg, Literature - World and Miscellaneous>

18. A Manchu folk tale titled for one of these people from Nisan exemplifies a story pattern which ethnographers also found among the Daur and Nanai peoples. Many different types of these people cross a metaphorical bridge while undergoing a "difficult passage" according to a book examining their "techniques of ecstasy" by Mircea Eliade ("meer-CHAY-ah eh-LEE-ah-day"). Korean varieties of these people are called *mu*, while (*) Inuit varieties are called *angakkuq* ("AHN-gak-kook"). The term for them comes from the Evenki, one of the many Siberian peoples among whom they are found. These religious figures typically undergo trances and out-of-body experiences to retrieve items and souls from the netherworld. For 10 points, name these spiritualists and medicine men from many animist religions.

ANSWER: shamans [accept shamaness or shamanists or shamanism; accept *Tale of the Nisan Shamaness*; prompt on medicine men or holy men or spiritualists]

<Alston, RMP - Other Religion>

19. At the request of George IV, a thirteen-year-old Franz Liszt improvised on one of these pieces in F major that closes Act I of Mozart's *Don Giovanni*. Bach's first and second cello suites, but not his other ones, each contain two of these pieces. The right hand plays (read slowly) "high D, followed by an ascent from middle G to high D, followed by two middle Gs," to begin one of these dances attributed to (*) Christian Petzold ("PET-solt"). In the Romantic era, these lively dances were replaced with scherzos ("SKAIRT-zos") as the third movement of most symphonies. The *Notebook for Anna Magdalena Bach* contains a famous example of these dances in G major. For 10 points, name this type of triple-meter dance which was usually paired with a trio in classical symphonies.

ANSWER: minuets [accept menuetto or menuetti]

<Alston, Fine Arts - Music>

20. The gene *toy* is the "twin of" a gene regulating this organ's development and is a homolog of Pax6. Hall and Rosbash won a Nobel Prize in 2017 for finding cryptochrome receptors in this organ that activate neural clock genes during circadian rhythms. The first sex-linked mutation was found in this organ; shortly after, Thomas Hunt Morgan also observed that small wings were linked to a mutation in this organ's (*) *white* protein. Phenotypes like "rosy", "vermillion", and "cinnabar" are mutations to this organ's normal red color. This organ is composed of tiny collections of neurons called ommatidia ("ah-muh-TID-ee-uh") in *Drosophila*. For 10 points, fruit flies contain both simple and compound types of what organs that contain photoreceptors?

ANSWER: fly eyes [or *Drosophila melanogaster eyes*]

<Silverman, Science - Biology>

21. In the 19th century, Gustav Waagen ("VAH-gen") identified this man as the artist of a painting that was referenced in a 20th century work where this artist's "ghost" has a long, dangling leg. Laura Snyder wrote a dual-biography of this artist and the scientist who executed his will, who likely modeled for this artist's painting of a man reaching his hand towards a globe. A sixteen-year old Protestant girl models for one of this Catholic artist's paintings in a novel by (*) Tracy Chevalier ("sheh-VAHL-yay"). His friend Antoni van Leeuwenhoek ("LAY-ven-hoke") may be depicted in his *The Geographer* and *The Astronomer*. This artist also painted a young woman in a blue turban wearing the title object and staring at the viewer. For 10 points, name this Delft-based artist of *Girl With a Pearl Earring*.

ANSWER: Johannes Vermeer [accept Jan Vermeer; accept *The Ghost of Vermeer of Delft that Can Be Used as a Table*]

<Bentley, Fine Arts - Painting>



NSC 2019 - Round 14 - Bonuses

1. A road in Ahmedabad ("AH-muh-dah-bod") is named for one of these structures at which Gandhi began his salt march. For 10 points each:

[10] Give the Sanskrit term for these Hindu hermitages or monasteries. The same Sanskrit word also names the divisions of life into four stages of 24 years in Indian spirituality.

ANSWER: **ashrams** ("ASHH-rums") [accept **ashrama** or **asrama**]

[10] During the first *ashram* of a man's life, known as *brahmacharya* ("BRAH-muh-CHAR-yuh"), he is supposed to live with a teacher known by this title, which also names Sikh spiritual leaders such as Tegh Bahadur and Arjun Dev.

ANSWER: **gurus** [accept **Guru** Nanak or **Guru** Arjun Dev]

[10] During *brahmacharya* and after, Hindus attempt to live according to this concept, sometimes translated as "right way of living." A wheel symbolizing this concept appears on India's flag.

ANSWER: **dharma** [accept **dhamma**; accept **dharmachakra** or **dharma** wheel]

<Smith, RMP - Other Religion>

2. These molecules display an unusual form of aromaticity if their number of pi electrons can be expressed as " $2n$ squared plus $4n$ plus 2", for some integer n . For 10 points each:

[10] Name these allotropes of carbon that take the shape of buckyballs or carbon nanotubes. They're named for an architect.

ANSWER: **fullerenes** [accept buckminster**fullerenes**]

[10] The original buckyballs discovered by Kroto and Smalley are non-aromatic since they have this many carbon atoms.

ANSWER: **sixty** [or **60**]

[10] Unlike planar aromatic compounds, spherical aromatic compounds like fullerenes regularly undergo this type of reaction in the presence of nucleophiles. Conjugated alkenes characteristically react with electrophiles through substitution instead of one of these reactions.

ANSWER: electrophilic **additions** [do not accept or prompt on "cycloadditions"]

<Silverman, Science - Chemistry>

3. This work's title character compares reason to the rudder of a ship and passion to its sails. For 10 points each:
[10] Name this book of 26 essays delivered by Almustafa as he leaves the city of Orphalese.

ANSWER: *The **Prophet***

[10] This author of *The Prophet* is, by some metrics, the world's third best-selling poet after Shakespeare and Laozi ("lao-tzuh"). His hometown of Bsharri, Lebanon has become rich due to his continued posthumous success.

ANSWER: Kahlil **Gibran**

[10] In the fourth section of *The Prophet*, Almustafa compares these people to an archer's arrows. These people also title a novel that traces the lives of Adham, Gabal, Rifaa and Qassem, who are allegories for the Abrahamic religions.

ANSWER: **children** [accept **kids**; accept **Children** of Gebelawi or **Children** of the Alley]

<Bentley, Literature - World and Miscellaneous>

4. Some migrants have been known to burn their fingertips to avoid having them recorded in a system of identification named for this city. For 10 points each:

[10] Give this city that names a regulation specifying which EU country is responsible for handling asylum claims.

ANSWER: **Dublin**, Ireland

[10] Between 2015 and 2016, the number of migrants coming into the EU by sea decreased by two thirds thanks to an agreement the EU signed with this country headed by Recep Erdogan.

ANSWER: **Turkey** [or Republic of **Turkey**]

[10] The migrant experience was fictionalized in this Pakistani-born novelist's 2017 book *Exit West*, where the protagonists use doors to transport from a war-torn country to Mykonos, London, and California. He also wrote *The Reluctant Fundamentalist*.

ANSWER: Mohsin **Hamid**

<Bentley, Current Events - World>

5. For 10 points each, answer the following about the career of Stephen Langton, who, among other accomplishments, is credited with dividing the Bible into chapters:

[10] Langton served in this post from 1207 to 1228. This was the highest post held by 16th century politician Thomas Cranmer, author of the *Book of Common Prayer*.

ANSWER: **Archbishop of Canterbury** [prompt on **archbishop**]

[10] Langton possibly wrote parts of this landmark document, which was agreed to by King John in 1215 at Runnymede and guaranteed certain rights to rebellious barons.

ANSWER: **Magna Carta** [or **Magna Charta**; or **Great Charter**; or **Magna Carta** Libertatum; or The **Great Charter** of the Liberties]

[10] This pope placed England under an interdict after King John refused to recognize Langton as archbishop. This man decreed the Fourth Crusade and called the Fourth Lateran Council.

ANSWER: **Innocent III** [or **Innocentius III**; or Lotario dei Conti di **Segni**; or Lothar of **Segni**; prompt on **Innocent**]

<Bentley, History - European>

6. Control systems are easy to model as block diagrams using a package attached to this language called Simulink. For 10 points each:

[10] Name this scripting language published by Mathworks, which is common in engineering due to its easy handling of data stored in matrices.

ANSWER: **MATLAB** [accept **Matrix Laboratory**]

[10] Simulink and MATLAB are used by electrical engineers processing this type of signal. This type of signal can be rendered in binary, unlike an analog signal.

ANSWER: **digital** signal processing

[10] Analog-to-digital converters work by sampling, which involves discretizing the time domain and making a measurement every finite time step. This undesirable phenomenon of a signal being distorted results from poor temporal or spatial sampling.

ANSWER: **aliasing**

<Silverman, Science - Engineering and Miscellaneous>

7. In one poem, a personification of this concept is called "mighty and dreadful," since it is "slave to fate, chance, kings, and desperate men." For 10 points each:

[10] Name this concept which, in the conclusion of one of the *Holy Sonnets*, is told "thou . . . shall be no more."

ANSWER: **death** [accept "**Death**, Be Not Proud"]

[10] "Death, Be Not Proud" was written by this poet. His other works include "A Valediction: Forbidding Mourning."

ANSWER: John **Donne**

[10] In another poem from the *Holy Sonnets*, the speaker compares himself to a "world" made in this fashion, since he is composed of "elements and an angelic sprite."

ANSWER: **cunningly** [exact word required; accept "I am a little world made **cunningly**"]

<Bentley, Literature - British>

8. The Portuguese term for ships hauling people of this status was *tumbeiros* or "coffin bearers." For 10 points each:

[10] Brazil was the final destination for about 40% of all people of what status brought to the New World?

ANSWER: **enslaved** people [accept anything involving **slaves** or **slavery**; prompt on **Africans**]

[10] Escaped Brazilian slaves formed communities of this name. The largest community of this type, Palmares, at one point had twice the population of Rio de Janeiro.

ANSWER: **quilombos** ("kee-LOHM-boos") [accept **kilombo**]

[10] The term *quilombo* originally referred to sites of initiation in this modern-day country, where the Portuguese set up slave trading forts on the Cuanza River. The MPLA and UNITA fought in this country's bloody civil war.

ANSWER: **Angola** [accept Republic of **Angola**]

<Bentley, History - Cross, Historiography, and Miscellaneous>

9. The use of these diagrams allows sounds to be categorized into formants. For 10 points each:

[10] Name these diagrams made practical by computers, which show the variation in the frequency of a sound over time.

ANSWER: **spectrograms** [accept **sonographs** or **voiceprints** or **voicegrams**]

[10] MRIs are used instead of spectrograms to study voicing, a process which distinguishes the sounds [p] and [b]. Voicing occurs if the vocal folds, which are located in this "voice box," vibrate.

ANSWER: **larynx**

[10] On a spectrogram, consonants made by passing airflow through this structure resemble vowels. The velum controls airflow into this organ's passages, which is used to help produce the "-ang" sound in "pangs."

ANSWER: **nose** [accept **nasal** consonants]

<Smith, Social Science - Linguistics>

10. Wall paintings of hunting scenes and dancers from this country were used as models by Lawrence Alma-Tadema, who set his paintings of *Chess Players* and a *Widow* here. For 10 points each:

[10] Name this country which is also home to the *mastaba* of Ti, whose namesake vizier is depicted as twice the size of the hunters around him.

ANSWER: **Egypt** [accept **Misr** or **Kemet**; accept ***Egyptian Chess Players***]

[10] Many Egyptian tomb paintings depict scenes from this text, which describes funerary rites and the afterlife, and which itself was frequently placed inside tombs.

ANSWER: ***The Book of the Dead*** [accept ***The Book of Coming Forth by Day***]

[10] This art history term designates the convention of proportions used by ancient Egyptian artists, which they implemented by drawing human figures on a grid. This Greek term also names a treatise by the sculptor Polykleitos.

ANSWER: **canon**

<Alston, Fine Arts - Painting>

11. Haverford College professor Bill Davidson staged a break-in of a field office of this organization during the night of the first Ali-Frazier fight. For 10 points each:

[10] Name this law enforcement organization, led at the time by J. Edgar Hoover.

ANSWER: **FBI** [accept **Federal Bureau of Investigation**]

[10] The 1971 break-in exposed this program, which sought to expose and discredit groups like the American Indian Movement and the Black Panthers. This program also targeted Martin Luther King, Jr.

ANSWER: **COINTELPRO** [accept **Counter Intelligence Program**]

[10] Just before the break in, this man invited Davidson to meet with him after hearing rumors Davidson was planning to kidnap him. This National Security Advisor controversially won the 1973 Nobel Peace Prize.

ANSWER: Henry **Kissinger** [accept Henry Alfred **Kissinger**; or Heinz Alfred **Kissinger**]

<Bentley, History - American>

12. For a linear N-atom molecule the number of rotational examples of these parameters is equal to 3N minus 5. For 10 points each:

[10] Name these entities that for a mechanical system, are the independent parameters that define the system's configuration. Joints and hinges reduce the number of these things.

ANSWER: **degrees of freedom** [or **degree of freedom**; or **DOF**]

[10] A degree of freedom is lost during gimbal lock, in which two of these entities in a gimbal are placed in parallel. This term refers to the line a body rotates around.

ANSWER: **axis** [accept **axes** or **axis** of rotation]

[10] The average kinetic energy of an atom can be computed due to this statement which assumes that the energy of a system is shared equally among a system's degrees of freedom.

ANSWER: **equipartition** theorem

<Reinstein, Science - Physics>

13. San Francisco newspapers worried that this man was dead after he failed to cable his mother after traveling to South Africa on assignment. For 10 points each:

[10] Name this author who used San Francisco as the setting for a novel in which the title character gives up his dental business for lacking a license.

ANSWER: Frank **Norris** [accept Benjamin Franklin **Norris** Jr.]

[10] Frank Norris's *McTeague* ends with Marcus handcuffing himself to the title character, thus ensuring that they both will die in this location.

ANSWER: **Death Valley** National Park [prompt on Mojave **Desert**]

[10] Norris also wrote *The Octopus*, wherein a group of farmers unsuccessfully try to challenge a monopoly that controls these vehicles. A murder on one of these vehicles titles an Agatha Christie mystery.

ANSWER: **train** [accept **railcar** or **railroad** car or **locomotive** or **railway** vehicle] (The Christie novel is *Murder on the Orient Express*.)

<Bentley, Literature - American>

14. This food is a byword for evidence planted at the scene of a crime by a corrupt cop. For 10 points each:

[10] Name this food that judge Sol Wachtler claimed any prosecutor could get a grand jury to indict.

ANSWER: **ham sandwich** [prompt on **sandwich** or **ham**]

[10] In mathematics, the ham sandwich theorem in three dimensions states that one can use these items to separate any two regions of contiguous space. These objects are often defined with a point and a normal vector.

ANSWER: **planes** [prompt on **hyperplanes**]

[10] In France, the *jambon-beurre* ("ja-bo bir") index uses ham sandwiches to measure purchasing power parity across these systems. Exchange rates dictate how much one of these monetary systems is worth relative to another.

ANSWER: **currency** [or **currencies**; do not accept or prompt on "cash"]

<Jose, Other - Other Academic and General Knowledge>

15. Chef Massimo Bottura credited this artist's sculpture depicting birds and bird droppings, *Tourists*, with inspiring his method of cooking. For 10 points each:

[10] Name this Italian sculptor known for scatological humor. One of his sculptures depicts a hand giving the viewer the finger, and was installed in the Borsa Italiana stock exchange.

ANSWER: Maurizio **Cattelan**

[10] One of Cattelan's galaxy-brain ideas was to steal other artists' sculptures and pass them off as these works. This term was coined to describe "found" sculptures such as *Fountain*.

ANSWER: **readymades** [accept **prêt-à-porter**]

[10] Cattelan's *La Nona Ora* depicts a holder of this title being struck by a meteor. This title's first holder is supposedly buried beneath St. Peter's Basilica.

ANSWER: **pope** [accept **Papa**] (*La Nona Ora* depicts Pope John Paul II.)

<Jose, Fine Arts - Sculpture>

16. A suppression of this religion from 841 to 845 freed some 150,000 slaves owned by monasteries of this religion. For 10 points each:

[10] Name this religion traditionally held to have been brought to China from India during the rule of Emperor Ming of Han.

ANSWER: **Buddhism** [accept Mahayana **Buddhism**]

[10] Wendi, the first ruler of this short-lived dynasty, declared himself a Cakravartin King to defend his massacre of 59 princes from a rival house in the name of Buddhism.

ANSWER: **Sui** dynasty

[10] This Chinese ruler widely distributed copies of the Great Cloud Sutra, which predicted a reincarnation of the Maitreya, and sponsored Buddhist cave temples at Longmen. The court of this one-time *huanghou* frequently traveled to the eastern city of Luoyang.

ANSWER: Empress **Wu** [accept **Wu** Zeitan; or **Wu** Zhao; **Wu** Hou; or **Tian** Hou; or Empress Consort **Wu**]

<Bentley, History - World>

17. In the dream-like final section of this novel, the author includes Flash Gordon comics to retell episodes from the Biblical Book of Revelation. For 10 points each:

[10] Name this 2005 novel which centers on an amnesiac book seller who has a stroke, and then can only remember things that he has ever read.

ANSWER: *The **Mysterious Flame of Queen Loana*** [or *La **Misteriosa Fiamma della Regina Loana***]

[10] This Italian author wrote *The Mysterious Flame of Queen Loana*. The Bible figures into a mysterious scheme called "The Plan," in his novel *Foucault's Pendulum*.

ANSWER: Umberto **Eco**

[10] In *The Name of the Rose*, the narrator Adso of Melk calls the Koran a "Bible of infidels" to which this clever monk retorts it is just "a book containing different wisdom than ours."

ANSWER: **William** of Baskerville [prompt on **Baskerville**]

<Jose, Literature - European>

18. The only known members of a medieval school of this name are Leonin and Perotin, who exemplify the *ars antiqua* style. For 10 points each:

[10] Give the original-language name of this figure, who also names the first setting of the Ordinary Mass by a single composer, Guillaume de Machaut ("gee-YOME de mah-SHOW").

ANSWER: **Notre Dame** [accept **Nostre Dame**; accept *Messe de No(s)tre Dame*; prompt on Mary or Our Lady]

[10] Machaut exemplifies a school of composers patronized by the Dukes of Burgundy and named for France and this other European region. Other composers from this region include Jan Ockeghem ("yan OCK-uh-ghem") and Guillaume Dufay ("gee-YOME doo-FYE").

ANSWER: **Flanders** [accept **Vlaanderen**; accept Franco-**Flemish** school; prompt on Belgium or Netherlands or Low Countries]

[10] Franco-Flemish composers often used this compositional technique, whose Greek name means "many sounds." It is contrasted with monophonic music.

ANSWER: **polyphony** [accept **polyphonic** music]

<Smith, Fine Arts - Music>

19. For 10 points each, answer the following about theories suggesting that life did not come from Earth:

[10] In 1996 NASA scientists studying ALH 84001, one of these objects from Mars, claimed that they found what might be fossilized microbes within it. The suffix "-oid" is usually used when they are still in outer space.

ANSWER: **meteorites** [accept **meteor** or **meteoroids**; prompt on space rocks]

[10] Fred Hoyle used this theory, which holds that life spread through the universe by so-called "seeds," to support his view that the universe did not have a beginning and has always existed. The chemist Svante Arrhenius ("suh-FAHN-tay uh-ray-NEE-uss") was the first to propose it.

ANSWER: **panspermia**

[10] This novel, written by Carl Sagan, depicts Eleanor Arroway and her four colleagues meeting aliens at the center of the Milky Way, where they learn the nature of the universe.

ANSWER: **Contact**

<Jose, Science - Astronomy>

20. This character's nurse wishes that trees had never been felled to make the *Argo* in a Euripides play that ends with her killing her children and flying off in a chariot pulled by dragons. For 10 points each:

[10] Name this sorceress who marries Jason after helping him acquire the Golden Fleece.

ANSWER: **Medea**

[10] Medea was a princess of this kingdom in modern Georgia that was the destination of the Argonauts. It was ruled by her father Aeëtes ("eye-EE-teez").

ANSWER: **Colchis** ("COAL-kiss")

[10] In the *Argonautica*, Jason murders this brother of Medea in order to escape from Aeëtes. In other traditions, Medea dismembers him herself and throws his limbs behind her.

ANSWER: **Absyrtus** [accept **Apsyrtus**]

<Rosenthal, RMP - Greco-Roman Mythology>

21. SILVA is a database for storing sequences of these molecules, which are useful for establishing taxonomic relationships due to their presence in nearly every cell. For 10 points each:

[10] Name these molecules which combine with proteins to form the SSU and LSU. Pol I synthesizes the 16S variant of these molecules.

ANSWER: **rRNA** [or **ribosomal RNA**; accept ribonucleic acid in place of RNA; prompt on RNA]

[10] The rRNA found in the large subunit of the ribosome is considered one of these specific types of RNA molecules which can catalyze reactions.

ANSWER: **ribozymes** [prompt on enzymes]

[10] Much like mRNA transcripts, preribosomal RNA must undergo this process of intron removal before it is functional.

ANSWER: **splicing** [accept word forms such as **splice**]

<Wang, Science - Biology>