Spring Undergraduate Novice 2020

“Neo-Tournament Arrives from the Future”

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Packet 6

Tossups:

1. **Some recent evidence suggests that this commodity was traded from the Limpopo River Valley and exported across the Indian Ocean from as late as the 7th century. Bangles and armlets partially made from this commodity were found in Iron Age farming communities in KwaZulu-Natal. Workers with the NGO known as the EIA went undercover to research the trade in this commodity where they met with traders in Hong Kong. The trade of this commodity was largely (\*)** banned in 1990 following a pro-ban push from CITES countries. While Africa was being colonized, slaves often had to carry this commodity before it could be turned into European goods such as billiard balls and piano keys. For 10 points, name this commodity that was harvested from elephant tusks.
ANSWER: **ivory** [accept **Ivory Coast** or **Cote d’Ivoire**; prompt on (elephant) tusks before mention] <Bunker, World History>

2. **One portrait by this artist depicts its subject wearing six rings and sitting in front of a green backdrop emblazoned with emblems of crossed keys. That pope commissioned a work by this artist that depicts the four "Fathers of the Church" debating about transubstantiation. One work by this artist broke into seventeen pieces after an earthquake and depicts an infant Jesus clutching a (\*)** goldfinch. This artist's best-known work is found in the former Stanza della Segnatura and depicts one of its central figures pointing his index finger towards the sky. For 10 points, name this Renaissance artist who depicted Plato and Aristotle at the center of his *The School of Athens*.
ANSWER: **Raphael** [or **Raffaello** Sanzio da Urbino] <Sims, Visual Arts>

3. **In one story by this author, the narrator describes arriving in Europe and being faced with the decision between "the Zoological Garden or the Music Hall." That narrator, an ape named Red Peter, chronicles his experiences learning to mimic human behavior in this author's "A Report to an Academy." In a novel by this author, the protagonist is advised by the financially ruined businessman (\*)** Rudi Block, the painter Titorelli, and the lawyer Herr Huld. That novel by this author contains the parable "Before the Law" and ends with the protagonist's last words, "like a dog!" For 10 points, name this author who wrote about Josef K in *The Trial,* who also described a grotesque transformation in *The Metamorphosis*.
ANSWER: Franz **Kafka** <Grossman, European Literature>

4. **Matariki is when the Maori celebrate this event, and it occurs as the Pleiades becomes visible in the night sky. A goldfish in a bowl of water is traditionally placed on a *haft-sin* table on a holiday celebrating this event. Zoroastrians celebrate that holiday, Nowruz, on the Vernal equinox. In another religion, this event is celebrated with apples and honey**. **(\*)** The shofar is blown on that Jewish example of this kind of holiday called Rosh Hashanah. On the Gregorian calendar, this holiday takes place a week after Christ's birth. For 10 points, name this holiday that is typically celebrated by making resolutions to better yourself.
ANSWER: **New Year**'s Day [accept **New Year**’s Eve; accept answers indicating the celebration of the **turning of the year**; prompt on Nowruz and Rosh Hashanah before each is mentioned] <Thomas, Religion>

5. **A method known by the acronym INEPT is used alongside this technique in pulse sequences. Ratios that follow Pascal's triangle are found in a form of this technique which splits peaks according to an "n+1" rule. For this technique, the correlation between dihedral angles and J-coupling constants are given by the Karplus equation. Increased electron density leads to (\*)** shielding in this technique, which in turn produces lower chemical shifts. This technique only works with non-zero spin atoms like carbon-13 or hydrogen. MRI is a medical application of this technique. For 10 points, name this technique in which applied magnetic fields are used to study nuclei.
ANSWER: **n**uclear **m**agnetic **r**esonance [accept **NMR** spectroscopy, accept **m**agnetic **r**esonance **i**maging or **MRI** before mentioned] <Maharjan, Chemistry>

6. **A character created by this author notices a ponytail lying on a pillow resembles a snake and thinks about the curse of Eve while helping her friend Adele with a difficult childbirth. In another story by this author, a woman receives a gift of a can of shrimp from her son shortly after passionately hooking up with her old flame during the title weather event. Louise Mallard fantasizes about all that see can do now that her husband is (\*)** dead before dying of shock when he returns home alive in another story by her. A character created by this author has affairs with Alcée Arobin and Robert Lebrun before drowning herself in the Gulf of Mexico. For 10 points, name this author of "The Storm" and "The Story of an Hour" as well as the novella *The Awakening*.
ANSWER: Kate **Chopin** <Harvey, American Literature>

7. **A solo dance piece from this country features a shrouded woman doing battle with her garment and is called *Lamentation*. German dancer Hanya Holm emigrated to this country to choreograph the piece *Trend*. Charles Wiedman and Doris Humphrey were among the "big four" pioneers of modern dance in this country. A dancer born in this country was killed when her long (\*)** scarf became entangled in the axle of the car she was riding in. The daughter of a film director from this country gained fame for her choreography of *Rodeo*. A ballet from this country features variations on the Shaker Hymn "Simple Gifts" and has music by Aaron Copland. For 10 points, name this country home to the dancers Agnes de Mille and Martha Graham, who choreographed *Appalachian Spring*.
ANSWER: **U**nited **S**tates of America [accept **America**] <Harvey, Other Visual>

8. **A 1982 ad in *Scientific American* promoting this industry states "we are better taught by experiences than by memorization." Apple employee Trip Hawkins founded a company in this industry, while Steve Jobs first worked in this industry after dropping out of college. Joe Lieberman led a 1993 senate hearing investigating this industry that led to the creation of a (\*)** rating system. Nolan Bushnell co-founded Chuck E' Cheese and a company in this industry that released the *Lynx* and the *2600*. Over-saturation of poor-quality titles lead to a 1983 North American crash in this industry, which would later be revived in Japan. For 10 points, name this industry which includes American companies like Atari and Electronic Arts.
ANSWER: **video game** industry [accept clear equivalents like **gaming** industry] (The ad is called *Can a Computer Make You Cry?* and was published by Electronic Arts) <Maharjan, American History>

9. **A long poem by Gerald Manley Hopkins contrasts a "Leaden Echo" with an "echo" described by this word. An excerpt from Thomas Dekker's play *Patient Grissel* titled for a type of sleep described by this word was used as the lyrics of a 1969 song that proceeds "Carry That Weight" on its album. The first line of John Keats "On First Looking into Chapman's Homer" reads "Much have I (\*)** travel'd in the realms of [*this thing*]." In *The Merchant of Venice*, the Prince of Morocco open a casket made of this material only to discover a scroll whose first line reads "All that glisters is not [this thing]." For 10 points, name this precious metal, often used as a byword for wealth.
ANSWER: **gold** [accept **golden**' accept The Leaden Echo and the **Golden** Echo"; accept "**Golden** Slumbers"]
<Harvey, British Literature>

10. **In an equation pairing this process with diffusion, this process is represented by the divergence of velocity times a concentration. When this process occurs along the interface of two fluids due to the formation of a gradient in surface tension, the tears of wine of the Marangoni effect can occur. A coefficient alpha representing this process is in the (emphasize) *numerator* of the Nusselt number. In the Earth's (\*)** mantle, this process can cause volcanic activity and the movement of tectonic plates. This process is exemplified by atmospheric circulation and devices like space heaters. For 10 points, give the name for this process of heat transfer caused by the bulk movement of molecules within a fluid which is often contrasted with conduction.
ANSWER: **convection** [prompt on heat transfer; accept mantle **convection**] <Bunker, Physics>

11. **A European philosopher said some texts from this modern-day country "ha[ve] been the solace of my life and will be the solace of my death." Thought from this country caused that thinker to argue the will was primal over the intellect. One thinker from this country listed six different kinds of connection in accordance with the fact that humans perceive both substances and properties. In addition to that philosopher of the (\*)** Nyaya school, a thinker from this country tried to unite the highest form of reality with a term usually translated as "soul." A 20th century thinker born in this country preached nonviolent resistance as part of his dogma of Satyagraha. For 10 points, name this birthplace of the thinkers Adi Shankara and Mahatma Gandhi.
ANSWER: **India** (first line was Schopenhauer on the *Upanishads*; unnamed Nyaya thinker was Udyotakara; Shankara differentiated between Atman and Para Brahman) <Bunker, Philosophy>

12. **This deity shares his most prominent feature with the more obscure Wepwawet and, like Thoth, was synchronized with Hermes during the Ptolemaic Period. This deity branded a disguised Set with a hot iron to protect the body of Osiris, thus giving the leopard its spots. This god's daughter Kebechet, the goddess of purification, is associated with (\*)** embalming fluid. If an event administered by this deity was successful, an individual was declared *maa kheru* and is allowed to enter *Duat*. This god is assisted by the crocodile-headed monster Ammit in the Hall of Two Truths. The Book of the Dead mentions how this god would weigh the hearts of the deceased against the feather of Ma'at. For 10 points, name this jackal-headed Egyptian god of the afterlife and mummification.
ANSWER: **Anubis** <Maharjan, Mythology>

13. **In one common speedrunning trick, this character can walk on the ceiling if side step is enabled and the player obtains the Chauncey key with the correct timing. In a later game, this character is killed and sent to the Underwhere where he is rescued before later merging with the Chaos Heart to form Super Dimentio. In the *Super Smash Bros*. series, this character is notable for his use of the misfire technique and his down (\*)** taunt spike. In most games, this character can jump higher but has worse traction than his shorter brother. This character stars in a series where he works under Professor Elvin Gadd, and uses the Poltergust to suck in ghosts. For 10 points, name this green-hat-wearing brother of Mario.
ANSWER: **Luigi** [also accept **Mr. L** or ***Luigi****'s Mansion*] <Bunker, Trash>

14. **Rib-Hadda of Byblos sent numerous pleas of help to this ruler, who had an uneasy relationship with king Tushratta of Mitanni. Artwork of this ruler unusually depicted him in a more down-to-earth manner, as exemplified by a stele depicting him giving a jewel to one of his three children. This ruler built the city of Amarna with the intention of moving the (\*)** capital city from Thebes. This husband of Queen Nefertiti commissioned several artworks bearing a circle with rays of hands beaming from it. The tomb of this ruler's son was discovered remarkably intact by Howard Carter; that son was Tutankhamun. For 10 points, name this pharaoh who attempted to shift Egypt from polytheism to worship of the sun god that formed part of his name.
ANSWER: **Akhenaten** [or **Amenhotep IV**] <Maharjan, Other History>

15. **This structure is the most common site of microdomains used for signal transduction known as lipid rafts. NPA motifs are contained in a protein in this structure that is made of six alpha-helices that span this structure. Negative charges are concentrated in portions of this structure by flippases and scramblases. White blood cells use this structure to (\*)** engulfpathogens in phagocytosis. Cholesterol acts as a buffer to maintain the fluidity of this structure across a range of temperatures. Water travels through aquaporins in this structure. As described in the fluid mosaic model, this structure consists of a semipermeable phospholipid bilayer. For 10 points, name this protective layer that surrounds all cells.
ANSWER: cell **membrane** [or plasma **membrane**] <Maharjan, Biology>

16. **A tone poem named for one of these locations contains the ascending melody (read in pairs) D-G, A-B, C-D, D-D and begins with two flutes alternating playing florid sixteenth-note melodies. Three "maidens" who live in one of these locations sing nonsensical phrases like "Weia! Waga! Wagala Weia!" (ve-ya va-ga, va-ga-la veya) before encountering the gold-stealing dwarf Alberich. A dance named for one of these locations was used in the docking sequence from (\*)** *2001: A Space Odyssey*. The first opera in Wagner's *Ring cycle* is named after one of these locations, a Bohemian example of which is depicted in Bedřich Smetana's *The Moldau*. For 10 points, what kind of geographical feature titles Johann Strauss's waltz *On the Beautiful Blue Danube*?
ANSWER: **river**s [accept any of **Moldau** river, **Vltava** river, **Rhine** river or **Danube** river] <Sims, Music>

17. **One of this country's policies was developed in the Bahr paper and replaced the previous stance of "unfriendliness" towards its neighbor. This country feared a ground invasion through the Fulda Gap during the Cold War and the US deployed Pershing II nuclear missiles in this nation. Two American soldiers were killed in the *La Belle* nightclub in this country, sparking the US bombing of Tripoli. A leader of this country resigned after one of his aides, (\*)** Günter Guillaume, was revealed to be a Stasi agent working for its neighboring country, with whom relations had been normalized through Ostpolitik. For 10 points, name this country whose "economic miracle" was overseen by Chancellors Ludwig Erhard and Konrad Adenauer.
ANSWER: **West Germany** [or the **F**ederal **R**epublic of **Germany**; or **Bundesrepublik Deutschland**; or **FRG**; or **BRD**; prompt on Germany; do NOT accept or prompt on "GDR" or "East Germany"]
<James, European History>

18. **In the 1960s, this author used the Atlas 2 to make computer-generated poetry. This author used Fyodor Dostoyevsky as the protagonist of his novel *The Master of Petersburg* and in the 2010s wrote a trilogy of novels about the life of Jesus. This author wrote a novel about an unnamed (\*)** magistrate who is tortured by the Third Bureau for nursing an injured girl back to health. In another novel by this author, a professor working on an opera about Lord Byon is stripped from his position for having sex with the student Melanie Isaacs, and later euthanizes a dog with Bev Shaw. That novel about David Laurie takes place in this author's former home of South Africa. For 10 points, name this author of *Waiting for the Barbarians* and *Disgrace*.
ANSWER: J. M. **Coetzee** [accept John Maxwell **Coetzee** <Kirksey, World/Other Literature>

19. *[*NOTE TO MODERATOR (not to be read aloud): read the answerline carefully before proceeding.*]* **A non-convex function named for Rosenbrock is often used to assess algorithms that do this task such as the BFGS algorithm. A stochastic version of an algorithm that accomplishes this task is often applied to loss functions in machine learning. In addition to those gradient (\*)** descent algorithms, this process can be done iteratively through local search hill climbing algorithms. Lagrange multipliers can be used to do this task in simple multivariate settings. For a single variable application, this process is typically done by setting the first derivative equal to zero. For 10 points, identify this process by which one finds minimums or maximums of a given function.
ANSWER: **optimization** [accept equivalents such as "**finding** local or global **minimums or maximums**" before mention; accept any of **convex optimization** or **nonlinear optimization** or **conic optimization**; prompt on linear programming; anti-prompt by asking "can you be less specific" on an answer of "gradient descent" before mention]
<Bunker, Computer Science>

20. **A culture about this condition was pioneered by an anthropologist who profiled the title family in *The Children of Sanchez* and did case work on San Juan, Puerto Rico. Angus Deaton has claimed that over 5 million Americans are below a World Bank standard of this condition studied by Oscar Lewis. Because of the proliferation of international aid, this condition was predicted to end worldwide by 2025 by Jeffrey** (\*) Sachs (“**sacks**”). This condition was documented by DSA founder Michael Harrington in his 1965 book The *Other America*. A federal statistic related to this condition depends on household family size and an economic food plan. For 10 points, name this economic condition affecting about twelve percent of Americans in which they might struggle to pay for things like housing or food.
ANSWER: **poverty** [accept word forms like **culture of poverty** or being **poor** or *End of* ***Poverty*** or **poverty** line or supplemental **poverty** measure; prompt on FPL] <Bunker, Economics>

Bonuses:

1. For 10 points each, name some things about politically damaging documents in the history of the British Labour Party.
[10] The Labour Party's manifesto in the 1983 election was dubbed "the longest suicide note in history," leading to the landside victory of the Conservative Party which was led by this "Iron Lady."
ANSWER: Margaret **Thatcher**
[10] This damaging letter was released four days before the 1924 election. This purported letter from the Soviet Union, which is now known to be a forgery, instructed British Communists to support Labour in order to hasten a violent revolution.
ANSWER: **Zinoviev** letter
[10] In a bid to bring Labour to the political center, this Prime Minister removed a call for the common ownership of the means of production from the Labour Constitution. This Prime Minister led Britain during its involvement in the Iraq War.
ANSWER: Tony **Blair** <Knecht, Other History>

2. One of these items possessed by Odin had the ability to multiply itself, and is usually viewed as a symbol of the familial love between Odin and Balder. For 10 points each:
[10] Draupnir was what type of enchanted object?
ANSWER: **ring** [prompt on jewelry]
[10] Skirmir, a servant of this Aesir god, failed to convince the giant girl Gerd to him after showing her the magic of Draupnir. This god of vegetation and peace is not to be confused with his similarly-named sister, a love goddess.
ANSWER: **Frey**r [accept Yngvi-**Frey**r; do NOT accept of prompt on "Freya"]
[10] Another enchanted ring from Norse myth, Andvaranuat, appears in one of these texts named for Volsung. The name of these Icelandic viking prose narratives has been generalized to refer to any type of long, involved story.
ANSWER: **saga**s [accept Völsunga **saga**; accept Icelandic or Viking **saga**] <Harvey, Mythology>

3. For 10 points, answer the following about the computationally-intensive subfield of density functional theory.
[10] In DFT, the Kohn-Sham approach allows one to generate a density for the wave function. That *n*-particle wave function can be represented as one of these determinants which generally describe the wave function of a fermionic system.
ANSWER: **Slater** determinant
[10] The first Hohenberg–Kohn theorem says that that external potential is a unique functional of the density of these particles. In computational chemistry, systems of these fermions are often described using the Hartree Fock method.
ANSWER: **electrons**
[10] The exchange energy associated with this principle, which affects electrons, helped further development of DFT from the earlier Thomas-Fermi model. This principle says that two fermions can not occupy the same quantum state.
ANSWER: **Pauli Exclusion** Principle <Bunker, Physics>

4. This psychologist posited the notion that a child's sense of morality is externally controlled, and that children judge an action based on its consequences. For 10 points each:
[10] Name this American psychologist who divided moral development into the preconventional, conventional, and postconventional levels.
ANSWER: Lawrence **Kohlberg**
[10] Much of Kohlberg's work expanded on the ideas of this Swiss cognitive theorist who developed the sensorimotor, preoperational, concrete operational, and formal operational stages of development.
ANSWER: Jean **Piaget**
[10] In a 1977 paper, this other American psychologist criticized Kohlberg's theories for drawing from an entirely male sample and thus explaining only a male definition of morality. This influential feminist psychologist and current NYU professor wrote *In a Different Voice*.
ANSWER: Carol **Gilligan** <Grossman, Psychology>

5. In one scene in this film, a palm reader exclaims "Don't forget, you're stardust!" to the two main characters before departing. For 10 points each:
[10] Name this 1995 film that follows Jesse and Céline, two strangers spending a single day together in Vienna. It is the first in a trilogy of films about the same characters, each released 9 years after the prior film.
ANSWER: ***Before Sunrise***
[10] *Before Sunrise* is a film by this American director who is also known for films such as *Everybody Wants Some!!* and *Dazed and Confused*.
ANSWER: Richard Stuart **Linklater**
[10] This Linklater film was shot over the course of twelve years and follows Ellar Coltrane as Mason Evans Jr. throughout the entirety of the title time of his life.
ANSWER: ***Boyhood*** <Grossman, Trash>

6. This equation is derived from the change in Gibbs Free Energy in an electrochemical reaction. For 10 points each:
[10] The factor "R-T over z-F" appears in what equation named for a German chemist that calculates the reduction potential of a half-cell or full-cell reaction?
ANSWER: **Nernst** equation
[10] The Nernst equation calculates the potential of a galvanic cell, which facilitates an electrochemical reaction using a bridge named for this type of substance. A common example of these ionic compounds is composed of a Sodium ion and Chloride anion.
ANSWER: **salt** [accept word forms like **salt bridge** or **table salt**]
[10] This other doubly-eponymous equation reduces to the Nernst equation when reaction rate is set to zero. This equation has limiting cases at high and low overpotential regions.
ANSWER: **Butler-Volmer** equation <Maharjan, Chemistry>

7. For 10 points each, answer these questions about famous Australian trees.
[10] Centurion, the world's tallest angiosperm, is a Tasmanian tree belonging to this genus. Koalas enjoy eating the leaves of these stereotypically Australian trees.
ANSWER: **eucalyptus** trees [accept ***Eucalyptus*** *regnans*]
[10] The Australian Labor Party was founded beneath a tree nicknamed the Tree of Knowledge located in the town of Barcaldine in this northeastern Australian state. This state contains the Cape York Peninsula and the city of Brisbane.
ANSWER: **Queensland**
[10] The Old Gum Tree is a landmark in this capital of Southern Australia, named for the consort of King William IV of Great Britain.
ANSWER: **Adelaide** <Harvey, Geography>

8. Though during his lifetime he was best known for his poetry, today this author's novels are much more well known. For 10 points each:
[10] This French author is best known for novels like *The Hunchback of Notre Dame* and *Les Miserables* but also created a number of plays, and a set of poems dedicated to his drowned daughter *Léopoldine*.
ANSWER: Victor **Hugo**
[10] This 1830 Hugo play literally caused a riot at the theaters when he debuted this play that was a flagship for the Romantic school of drama. In this play, the title bandit is one of three men wooing Dona Sol.
ANSWER: ***Hernani***
[10] Hugo's poems influenced this french poet who included "To the Reader" and "The Albatross" in a collection published in 1857.
ANSWER: Charles **Baudelaire** <Kirksey, European Literature>

9. Between 1920 and '30, a resolution in support of this goal was passed but rejected six times. For 10 points each:
[10] Name this goal, which in France was achieved fully for the 1945 election. Notable advocates for this cause included the editor of La Française Jane Misme and Jeanne Schmal.
ANSWER: **women's suffrage** [accept logical equivalents like "**giving women the right to vote**"; prompt on just "suffrage"]
[10] Later, some French women signed the so-called "Manifesto of the 343 Bitches" which was written by Simone de Beauvoir where they admitted to undertaking this then-illegal activity. This activity was legalized in France under health minister Simone Veil in 1975.
ANSWER: **abortion** [prompt on birth control]
[10] This country was the first European nation to give women the vote when it did so in 1906. Less progressively, a nationalist group in this nation known as the Lapua movement attempted a coup in 1932.
ANSWER: Republic of **Finland** [or **Suomi**] <Bunker, European History>

10. Some of these pieces were orchestrated by Marvin Hamlisch for the soundtrack to *The Sting*. For 10 points each:
[10] Name this kind of early 20th century piano piece that includes "Elite Syncopations," "The Easy Winners," and one named for a "Fig Leaf."
ANSWER: **rag**s [or **ragtime**]
[10] This "king of ragtime" wrote those rags, as well as "The Entertainer" and the "Maple Leaf Rag."
ANSWER: Scott **Joplin**
[10] The development of ragtime was inspired by the work of this earlier composer, one of whose best-known works was composed for the awards ceremony of a newspaper essay contest.
ANSWER: John Philip **Sousa** <Dees, Music>

11. Answer some questions about labyrinths in literature, for 10 points each:
[10] *The Labyrinth of Solitude* is a book-length essay concerned primarily with ideas of Mexican identity by this poet who also wrote "Sunstone."
ANSWER: Octavio **Paz** Lozano
[10] *The General in His Labyrinth* is a classic of the dictator novel genre, chronicling a fictionalized account of the last days in the life of Simón Bolívar. It was written by this author of *Leaf Storm*.
ANSWER: Gabriel José de la Concordia García **Márquez**
[10] One character in this novel describes a library as a "spiritual" and "terrestrial labyrinth" from which "You might enter and you might not emerge." This debut novel by Umberto Eco focuses on William of Baskerville and Adso of Melk.
ANSWER: ***The Name of the Rose*** <Grossman, World/Other Literature>

12. 22,000 workers died in the initial attempt of this project. For 10 points each,
[10] Name this project that was completed after the signing of the Hay-Bunau-Varilla Treaty. 5,600 more workers died in the final phase of this project, which was finally completed by a corps of engineers led by George Washington Goethals.
ANSWER: **Panama Canal**
[10] The first major failed attempt to build the Panama Canal was led by this lead developer of the Suez Canal. The Panama Canal project was so bungled that he was initially convicted of corruption following its failure, but was later acquitted on appeal.
ANSWER: Ferdinand de **Lesseps**
[10] The U.S. leased the land for the Panama Canal from Panama, which seceded from Colombia with U.S. support, an example of this president's "big stick diplomacy."
ANSWER: **T**heodore **Roosevelt** [accept **Teddy Roosevelt**; prompt on Roosevelt] <Knecht, World History>

13. This artist used red sandstone for his huge sculpture of a lion in Belfort, France. For 10 points each:
[10] Name this sculptor who was never allowed to build his monumental *Egypt Carrying the Light to Asia* near the Suez Canal. With the help of his friend Édouard René de Laboulaye (“**Lah-bah-lay**”), this artist was able to secure a commission for a similarly massive statue in the 1880s.
ANSWER: Frédéric Auguste **Bartholdi**
[10] Bartholdi is best known for this large neoclassical sculpture which stands on an island in New York Harbor.
ANSWER: the **Statue of Liberty** [accept ***Liberty Enlightening the World***]
[10] Another sculptor of massive, iconic American artworks was this man who used dynamite to blast away rock in his design for the Mount Rushmore National Memorial in South Dakota.
ANSWER: John Gutzon de la Mothe **Borglum** <Harvey,Visual Arts>

14. For 10 points each, answer some questions about the life of the "weeping prophet."

[10] According to Jewish tradition, this prophet is credited with writing the The Book of Kings and his namesake book. This figure was assisted by the scribe Baruch ben Neriah.
ANSWER: **Jeremiah**
[10] In chapter 7 of his namesake book, Jermiah delivers a sermon at the entrance of this building, the first iteration of which was built by Solomon. The first version of this holy building in Jerusalem was destroyed by Nebuchadnezzar II.

ANSWER: Solomon’s **Temple** [accept the First **Temple** or the **Holy Temple**; accept ***Beit HaMikdash***]

[10] This other Old Testament book usually ascribed to Jeremiah is read on Tisha B'Av to mourn the destruction of the first and second temples.
ANSWER: Book of **Lamentations** <Kirksey, Religion>

15. The Japanese Akatsuki space probe studied the atmosphere of this planet but failed to orbit in 2010. For 10 points each:
[10] Identify this planet whose atmosphere is much denser and warmer than that of Earth. The existence of clouds made up of sulfuric acid makes observing this planet difficult.
ANSWER: **Venus**
[10] This compound makes up the vast majority of Venus’ atmosphere. The existence of this compound in Earth’s atmosphere allows for photosynthesis to take place.
ANSWER: **Carbon dioxide** [accept **CO2**]
[10] While observing Venus, the Akatsuki probe observed this phenomenon where part of the atmosphere moves faster than the ground does. This phenomenon may be caused by so-called “centrifugal waves” and also takes place in the atmosphere of Titan.
ANSWER: **superrotation** [prompt on just “rotation”] <Bunker, Astronomy>

16. One member of this family has played a major role in the design of two Palazzo hotels bearing her name: one in Queensland and the other in Dubai. For 10 points each:
[10] Name this fashion family whose notable members include Donatella and a designer who was murdered by Andrew Cunanan in 1997, Gianni.
ANSWER: **Versace**
[10] Cunanan shot Gianni Versace outside his mansion near this city. This city's annual fashion week takes place in Dade County.
ANSWER: **Miami**
[10] A quote by Anna Wintour claims that this designer "dresses the wife" whereas Versace "dresses the mistress." This Italian designer is credited with pioneering red-carpet fashion and was the first living designer to have work displayed at the Guggenheim Museum in New York.
ANSWER: Giorgio **Armani** <Grossman, Other Visual>

17. For 10 points each, answer the following about underappreciated female scientists in American History.
[10] The NIH ignored Bernice Eddy's findings on the contamination of Jonas Salk's early vaccines for this disease. FDR was diagnosed with this disease that is sometimes called infantile paralysis.
ANSWER: **polio**myelitis
[10] While working at Harvard as a human computer, this astronomer's discovery of the period-luminosity relationship of Cepheid variables would help Edwin Hubble and other astronomers reliably measure intergalactic distances.
ANSWER: Henrietta Swan **Leavitt**
[10] The film *Hidden Figures* chronicles the contributions of Katherine Johnson, Dorothy Vaughan, and Mary Jackson to this NASA project. As part of this mission, Alan Shepard became the first American in space.
ANSWER: Project **Mercury** <Zhou, American History>

18. After his hajj, the subject of this book proclaims that "America needs to understand Islam, because this is the one religion that erases from its society the race problem." For 10 points each:
[10] Name this book published after the 1965 death of its subject and co-author, chronicling his evolution from Detroit Red to "Satan" to El-Hajj Malik El-Shabazz.
ANSWER: ***The Autobiography of Malcolm X***
[10] This writer worked closely with Malcolm X on his autobiography. In a 1977 ABC miniseries, LeVar Burton played Kunta Kinte, a fictionalized ancestor of this author who appeared in his book *Roots*.
ANSWER: Alex **Haley**
[10] In *Roots*, Kunte Kinte is captured and becomes one of these people. Frederick Douglas wrote an account of his time as one of these people.
ANSWER: **slave**s [accept clear equivalent like **enslaved** people] <Zhou, American Literature>

19. A 2019 *Nature* paper showed MDMA reopened the critical period of this hormone-dependent pathway. For 10 points each:
[10] Name this peptide hormone and neurohormone that is secreted by the posterior pituitary gland. This so-called "love hormone" helps induce childbirth and social bonding.
ANSWER: **oxytocin**
[10] Oxytocin causes uterine contractions in childbirth which is an example of this type of loop. This type of loop amplifies the starting signal and is usually found in the process that needs to be pushed to completion.
ANSWER: **positive** feedback loop
[10] Unlike positive feedback loops, negative feedback loops help maintain this concept. This concept is an organism's maintenance of a stable internal environment, despite changes in pH and body temperature.
ANSWER: **homeostasis** <Oung, Biology>

20. This author wrote a full length play in collaboration with Charles Maude called *The Watched Pot*. For 10 points each:
[10] Name this author, who wrote about Framton Nuttel in the short story "The Open Window."
ANSWER: **Saki** [or H.H. **Munro**]
[10] This short story by Saki follows the feud over a forest between Georg Znaeym and Ulrich von Gradwitz. It ends with both men surrounded by a pack of wolves, realizing that they were the title individuals all along.
ANSWER: "The **Interlopers**"
[10] In Saki's "Tobermory," the title character is one of these animals who has been taught how to speak. Lewis Carroll wrote about a "Cheshire" one of these animals in *Alice's Adventures in Wonderland*.
ANSWER: **cat**s [accept equivalent answers; prompt on **feline**s] <Grossman, British Literature>