Packet 3

Spartan Housewrite

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Tossups:

1. **If the probability that two randomly selected elements of a group commute is greater than this number over eight, than that group must be abelian. There are this many sporadic Mathieu groups, the largest of which is *this number*-transitive. If a group is *n*-transitive and *n* is *greater* than this number, then that group is either symmetric or alternating. The alternating group of this order is the smallest non-abelian (\*)** simple group. The symmetric group of this order is the smallest symmetric group not to be solvable. This is the smallest number of nodes that a nonplanar graph can possess. This is the only number to be both two more and two less than a prime number. This is the length of the hypotenuse of the smallest right triangle with integer sides. For 10 points, identify this number, which is the largest member of a Pythagorean triple including 3 and 4.
ANSWER: **5** [or **five**]

2. **One 1973 book named for this color was refuted by texts including *The Timely Shower* and *Rain of Adamant Fire*. That book written by Kyabje Zemey Rinpoche recounts the stories of religious figures who were struck down by the god Dorje Shugden after violating his commands. In accordance with Bon tradition, prayer flags of this color must be placed furthest to the right in displays; those prayer flags symbolize the earth. One sect named for this color is sometimes named for the Ganden (\*)** monastery that its founder established. The leader of one sect named for this color is currently housed at the Namgyal Monastery. That sect named for this color was founded by Je Tsongkhapa, and is also known as the Gelug. That sect's leaders formerly ruled from Potala Palace and include the Panchen and Dalai Lamas. For 10 points, name this color of the hats that name Tibetan Buddhism's dominant sect, which is contrasted with "red hats."
ANSWER: **yellow** [do not accept or prompt on "gold"; accept gelug before mention]

3. **The speaker of a poem by this author wonders if "Anyone looked at me, forty years back / And thought, *That'll be the life*" and eventually contemplates how the "deep blue air" is "nowhere, and is endless." In another poem by this author, the speaker donates an "Irish sixpence" and comments how "dubious women to make their children touch a particular stone." In another poem by this author about a funerary structure, the speaker describes two figures in a (\*)** "supine stationary voyage" who prove "What will survive of us is love." This poet of "An Arundel Tomb" wrote about "a serious house on serious earth" in a poem about a title building where the speaker is "sure there is nothing going on." For 10 points, what poet of "Church Going" wrote about how "they fuck you up, your mum and dad" in "This be the Verse?"
ANSWER: Philip **Larkin**

4. **A lieutenant named A.L. is the chief source of information on an assassination plot against one leader of this surname, which was codenamed Operation Buffalo Zero in reference to that leader's weight. That leader ran a brothel in the town of Kigoma after the failure of a rebellion he led. That leader with this surname was described as "too addicted to drink and women" to lead a mass political movement by Che Guevara. Another leader with this surname is opposed by figures including the convicted war criminal Jean-Pierre Bemba and Moise Katumbi. One leader with this surname became President after leading a (\*)** Rwandan-backed Tutsi army during the First Congo War. For 10 points, give this surname shared by the current president of the Democratic Republic of the Congo, Joseph, and his father, Laurent-Desire.
ANSWER: **Kabila**

5. **This artist was the first to use modern European letters instead of Gothic script in an altarpiece for the Cascia di Reggello; that work possibly includes the shahada in Mary's Halo. This artist collaborated with his brother and Andrea di Giusto to paint *Madonna and Child with Angels* for the Santa Maria del Carmine. "I was once what you are, and what I am you will become" can be read above a skeleton in a painting by this artist that shows God holding the crucified Christ. This artist of the San (\*)** Giovenale triptych depicted a pink-clad angel with a sword expelling a crying Adam and Eve from Eden in one fresco. Another fresco by this artist depicts Peter extracting a coin from a fish's mouth on its left side and him handing the coin to a tax collector on the right. For 10 points, identify this artist whose frescoes in the Brancacci Chapel include *The Tribute Money*.
ANSWER: **Masaccio** [or **Tommaso di Ser Giovanni** di Simone; prompt on partial answer]

6. **For a certain type of this kind of device, the solutions for two values were given by Schelkunoff for the Ollendorf sheath-helix in terms of Bessel functions. A specific type of these devices come up in such shapes as RS and RM, which are square pot cores. That type of these devices are named for a bobbin. Another of these devices has magnetic flux density equal to the permeability of free space times the number of (\*)** turns in the device divided by its length. The namesake quantity of these devices multiplies the change in current divided by change in time to give the EMF and is measured in Henrys. For 10 points, name these devices, exemplified by solenoids and often made of coils, that stores energy in its magnetic field when a current is applied.
ANSWER: **Inductor** [anti-prompt on solenoid before mention by asking “can you be less specific?”; accept specific kinds such as **Bobbin inductor**; prompt on electromagnet]

7. **After a character in this play is told that a woman is promised to another man, he exclaims "Memory is the Master of Death" and states that he deserves a "bed of honor." In this play's third scene, two girls steal batons and knock the hats off of policemen. One man in this play is confused when he is told a man plans to "commit death." This play opens with the central character, described by his son as an "eater of left-overs," telling the story of the (\*)**"Not-I" bird to the Praise-Singer. In this play, a Muslim man named Amusa is offended when a character wears "fancy dress" that is a sacred egungun. The District-Officer Simon Pilkings is unable to stop Olinde's father from killing himself in this play after the ritual suicide of his son. For 10 points, name this play that concludes with Elesin's death which was written by Wole Soyinka.
ANSWER: ***Death and the King's Horseman***

8. **After a general who defeated this Native American tribe and wanted to send them home was overruled, many of them were sent to what they called "the hot place," the Ponca Reservation. A leader of this tribe chosen by the U.S. was known as "The Lawyer"; his followers were called the "Treaty Band" because they had agreed to the 1863 "Steal Treaty." This tribe was exiled to the Lapwai reservation, and this tribe won a battle at (\*)** White Bird Canyon. Their war leader Looking Glass was killed after their defeat at Bear Paw Mountain which was fought while they tried to flee to Canada. One of their chiefs said "I will fight no more forever." Chief Joseph was a leader of—for 10 points—what Native American tribe of the Pacific Northwest known for their horsemanship who are usually called by a French name meaning "pierced nose"?
ANSWER: **Nez Percé** [or **Nimipu** or **Tsoop-Nit-Pa-Loo**; accept **Sahaptin** or **Shahaptin**]

9. **In this work the author posits that "the chief obstacle… to our improvement in the moral or metaphysical sciences is the obscurity of the ideas" as part of his conception of using tests to see if a term has any cognitive content. One section of this philosophical work was satirized by the 19th century English rhetorician Richard Whately in a pamphlet. The "second object of human reason", "matters of (\*)** fact", are ascertained differently than the other object according to the author of this book. This is because all proposition, such as the sun will rise tomorrow, must have nonzero probability. In the second section of this work, its author claims that because humans could lack the perception of it, a missing shade of blue is possible. For 10 points, name this epistemological work that followed *A Treatise of Human Nature*: that was written by David Hume.
ANSWER: ***An Enquiry Concerning Human Understanding***

10. **One film by this director opens with a fifteen minute scene in which the main character attempts to feed his cat at 3 A.M. Leonard Cohen provided the score for a Revisionist Western film by this director. For both of those films, this director used cinematographer Vilmos Zsigmond. In addition to adapting Raymond Chandler's *The Long Goodbye*, this director made a film in which a movie producer makes a film-within-a-film called *Habeas Corpus* while being investigated for murdering a screenwriter. In another film by this director, characters campaign for the (\*)** Replacement Party candidate Hal Phillip Walker. That film ends with a shooting at a concert at the Parthenon in the title Southern city. For 10 points, identify this New Hollywood director of *McCabe and Mrs. Miller*, *The Player*, and *Nashville*.
ANSWER: Robert **Altman**

11. **Ethnic Chinese miners on this island established autonomous societies called *kongsi* that later coalesced into the Republic of Lanfang. Immigrants from the Hadhramaut region of Yemen established this island's Pontianak Sultanate. The Brooke family ruled part of this island as an independent fiefdom in the 19th century. The "Sea**  **Dayak" people of this island were prolific pirates in the waters around it. The** (\*) Bolkiah Dynasty has ruled one state on this island since the 15th century. This island's city of Kuching was the base of a Japanese invasion of it that later took the rest of the state of Sarawak. This island was split between British and Dutch colonies after land purchases in the 1880s. For 10 points, name this island divided between the modern countries of Indonesia, Malaysia, and Brunei.
ANSWER: **Borneo** [accept **Kalimantan**]

12. **Foreign agents were accused of murdering Simegnew Bekele, the chief engineer for one of these structures, after his suicide in 2018. The furthest South of these structures is located at Owen Falls, and other major examples of these structures are located at Sennar and Asyut. The largest of these structures is located North of the island of Philae. The US's withdrawal of aid in building one of these (\*)** structures was a major catalyst of the Suez Crisis. The construction of one of these structures named for the Grand Ethiopian Renaissance has been vigorously opposed by the governments of Sudan and Egypt. An annual flooding pattern was disrupted by one of these structures built with Soviet aid near a certain river's First Cataract. For 10 points, name these structures, one of which located at Aswan resulted in the creation of Lake Nasser.
ANSWER: **Dams on the Nile** [prompt with "where" on answers involving just dams]

13. **FCP1 from surrounding tissue downregulates a key transcription factor in this tissue, which is also downregulated by FEA3. One type of this tissue has two layers that divide anticlinally and a third layer whose divisions are un-oriented; those layers are L1, L2, and L3. This tissue is maintained by the WUS transcription factor, which in turn is inhibited by CLV3, one of the CLAVATA genes. One type of this tissue has a central slowly-dividing portion called the (\*)** quiescent center. Grasses uniquely have the intercalary form of this tissue. The secondary types of this tissue are the cambiums including the cork and vascular variety, the latter of which becomes xylem and phloem. Root and shoot growth occurs in the apical part of this tissue. For 10 points, name this undifferentiated tissue in plants that contains stem cells.
ANSWER: **meristem** [accept any of apical **meristem**, primary **meristem**, secondary **meristem**, shoot apical **meristem**, or root apical **meristem**]

14. **A paper by Barro (“bare”-oh) on this theory "and monetary policy" expands upon an earlier model in this theory which only supposed a non-durable commodity and fiat money. This theory supposes a continuous market clearing mechanism which some have criticized due to the existence of things like inventories and backlogs. In a paper called "*this theory* and the theory of price movements", John Muth argued that the predictions from this theory are "essentially" the same as classical economic theory. By advocating for the "policy (\*)** ineffectiveness proposition," Robert Lucas argued that if this theory held, it would not be possible for the government to manipulate "forecast errors" which led to a "revolution" named after this theory. For 10 points, name this theory in economics which states that agents in the model have access to all available information and use this information to make optimal decisions.
ANSWER: **rational expectations** [also accept strong or weak **rational expectations**]

15. **One character in this novel attacks children for chanting "Turkey in the Straw" "like sorcerers." The protagonist of this novel feeds lunchmeat to the elderly Miss Trixie at a factory job at which he organizes the "Crusade for Moorish Dignity" among black workers. In this novel, a policeman who frequently clashes with Burma Jones tries and fails to read *The Consolation of Philosophy*, from which its protagonist draws his belief in the goddess (\*)** Fortuna. This novel's protagonist writes down his thoughts in Big Chief notebooks and runs a hot dog cart. The protagonist of this novel attends a party in the French Quarter and flees New Orleans with his ex-girlfriend, Myra Minkoff. For 10 points, name this novel that chronicles the misadventures of Ignatius J. Reilly, the most famous novel of John Kennedy Toole.
ANSWER: ***A Confederacy of Dunces***

16. **In a work by this composer - one of his collaborations with lyricist Salomo Franck - the soprano soloist declares in a cheerful D-major recitative that "to cuddle in playful tenderness is better than Flora's fading delights." That recitative, "*Sich üben*** **(“OO-ben”)**  ***im Lieben*," is from a piece by this composer for solo soprano, solo oboe, and continuo, "*Weichet* (“VEICH”-et)** ***nur, betrübte* (be-troob-teh)** ***Schatten*." Dame Myra Hess wrote a piano transcription of the tenth and final movement of this composer's *Herz* (“hairtz”)** ***und Mund und Tat und Leben*, (\*)** "*Jesus bleibet meine Freude*". This composer's other cantatas include ones titled *Sleepers Wake* and one titled after *Coffee*. Felix Mendelssohn was a key figure in reviving many of this composer's works including the *St. Matthew Passion*. For 10 points, name this German baroque composer of the *Brandenburg Concertos* and *Toccata and Fugue in D minor*.
ANSWER: Johann **S**ebastian **Bach** [prompt on Bach]

17. **Six oxygen atoms coordinate to one atom of one of these elements in the Shibasaki catalyst. An excitation of 340 nanometers and emission of 615 nanometers is used with a filter fluorometer in an assay in which one of these elements is bound to a secondary antibody. The free ion of another of these elements causes nephrogenic systemic fibrosis. A reagent containing one of these elements bound to three fod ligands uses a pseudocontact interaction to change the chemical shift of (\*)** chiral compounds. MRI contrast agents contain a paramagnetic one of these elements, another of which emits fluorescence in the DELFIA assay. The fact that these elements 6s electrons are drawn closer to their nuclei due to poor shielding from their valence orbital is called their namesake contraction. Gadolinium, samarium and europium are two of these elements, whose 4f orbitals are partially filled. For 10 points, name these elements that lie above the actinides on the periodic table.
ANSWER: **lanthanide**s [prompt on rare earth elements; prompt on f-block elements; prompt on metals; prompt on transition metals; prompt on inner transition metals]

18. **Supposedly, one side's leader at this battle was captured because the Order of the Star he created four years prior stipulated that troops could not retreat further than four steps. Captal de Buch charged one side's left flank in this battle, which began shortly after a failed negotiation of peace led by Cardinal Talleyrand de Périgord. The French defeat at this battle partially inspired a peasant revolt led by Etienne Marcel.** **The Treaty of (\*)** Bretigny was signed to release king John the Good, who was captured at this battle. The Jacquerie revolt began after a defeat at this battle. Edward the Black Prince led English forces at this battle, whose decisive defeat for one side ended the Edwardian phase of a certain war. Occurring 10 years after the Battle of Crecy this is, for 10 points, what major victory for the British army in the Hundred Years' War?
ANSWER: Battle of **Poitiers** **(“pwat-YAY”)**

19. **This figure swore to defeat one of his sons after that son captured the Ashvamedha horse and killed Vrishaketu. After this figure was killed by Babruvahana, he would be revived by a stone obtained from the naga Ulupi. During one battle in which this figure fought, he killed Bhagadatta on top of a giant elephant called Supratika. In another story regarding this figure, he burns down the (\*)** Khandava forest with the help of Agni, in order to build a new city in its place. After he saved his teacher from a crocodile, this hero was proclaimed the favorite student of Dronacharya. At the beginning of the Dharma Yuddha, this son of Kunti and Indra was encouraged to fight when his charioteer revealed himself to be an avatar of Vishnu. For 10 points name this hero of the *Mahabharata*, a member of the Pandavas, who slew Bhishma with the help of his charioteer, Krishna.
ANSWER: **Arjun**a

20. **An essay about this author denounces Pierre Klossowski’s attempts to "deduce [this author's] life from his work." A character created by this author befriends a seven foot tall Russian ogre-like man named Minski and "demonizes Catholicism as the latest mythology" according to Max Horkheimer and Theodor Adorno. In another novel written by this author, Thérèse recounts the life of her and her sister, whose "vice" is (\*)** "amply rewarded." Simone de Beauvoir defended this author by asking if "We must burn" him. This author's most famous novel focuses on four libertines with a harem of teenagers in a secluded castle, which this man wrote while imprisoned in the Bastille. For 10 points, identify this sexually-explicit French author of *Justine*, *Juliette*, and *120 Days of Sodom*.

ANSWER: Marquis de **Sade**

Bonuses:

1. For the two dimensional harmonic oscillator, this quantity is **(read slowly)** one half quantity *kr* squared + l squared divided by 2*r* squared and is derived from the one dimensional Lagrangian. For 10 points each:
[10] Identify this potential that is derived from an energy equation that can be used to find the radius of a circular orbit by setting its derivative with respect to r equal to 0.
ANSWER: **effective potential** energy
[10] This constant, symbolized k, appears in that aforementioned two harmonic oscillator equation. This constant multiplies the displacement to yield the force in the simple Hooke's Law.
ANSWER: **spring** constant
[10] These polynomials arise after solving the Schrödinger equation by a series method for the harmonic oscillator. The Wigner distribution function shows the relationship between the *n*th order function named after these polynomials and the *n*th order Laguerre **(La-”gair”)** polynomial.
ANSWER: **Hermite** **("AIR"- mit)** polynomials

2. The speaker of a poem by this man asks to " be gather'd to the quiet west" while observing the "late lark singing". For 10 points each:
[10] Name this British author who wrote "Margaritae Sorori", as well as a collection of poems while hospitalized with an infected right foot entitled "In Hospital."
ANSWER: William Ernest **Henley**
[10] Henley is better known for this poem which ends with the speaker declaring "I am the master of my fate,/I am the captain of my soul."
ANSWER: "**Invictus**"
[10] While deriding himself for giving into temptation, this author references "Invictus" by stating "I was not the captain of my soul" in his letter to Lord Alfred Douglas, *De Profundis*. He also addressed his homosexuality in the poem "The Ballad of Reading Gaol" **(jail)**.
ANSWER: Oscar Fingal O'Flahertie Wills **Wilde**

3. A document stored at Saint Catherine's Monastery and known as the *Ashtiname of* [this person] consists of a covenant in which this person grants special rights to Christians. For 10 points each:
[10] Identify this religious figure who, in the *Ashtiname*, identified Christians as "My Subjects and under My Protection." This figure is better known for having the Qur'an revealed to him, and being the last Prophet of Allah.
ANSWER: **Muhammad** [accept alternate spellings liberally]
[10] Non-Muslims, including those who don’t follow Abrahamic religions, are referred to by this term, meaning "protected person", whose Quranic basis comes from Sura al-Baqara. Following the conquest of Mecca, Muhammad wrote up the Constitution of Medina, granting people designated by this term specific rights.
ANSWER: **dhimmi** [accept **dhimmah**; prompt on people of the book or ahl al-kitab]
[10] One requirement for dhimmi was payment of this tax, described in Sura al-Tawba. One common defense for its existence is that Christians and other dhimmi were exempt from military service.
ANSWER: **jizya** tax

4. This dynasty drew its civil servants exclusively from the aristocratic Yangban class, rather than the outcast Baekjeong. For 10 points each:
[10] Name this dynasty that ruled Korea using a strict caste system after coming to power in 1392 until it was overthrown by a Japanese invasion in 1910.
ANSWER: **Joseon** Dynasty [also accept **Yi** Dynasty]
[10] This modern country was the home of the outcast "mean people", who worked in demeaning or transient jobs until they were emancipated in the 18th century. After emancipation, they often settled in cities like Beijing or Wuhan.
ANSWER: People's Republic of **China** [also accept **Qing** China, I suppose]
[10] This class of hereditary outcasts in Japan came to make up a disproportionate number of *yakuza* gangsters. A subgroup of these people who took jobs such as street-sweeping were called *hinin*, or non-humans.
ANSWER: hisabetsu **burakumin** [accept **eta**]

5. Defects in CD40 cause elevation of this protein's levels. For 10 points each:
[10] Name this antibody isotype that is expressed alongside IgD, and whose soluble form is usually a pentamer. This isotype is the first in the IgH locus, and is therefore the first expressed during development.
ANSWER: immunoglobulin **M** [or **IgM**]
[10] IgM, like all other antibodies, are expressed by these lymphocytes that mature in the bone marrow. They differentiate into plasma and memory cells later in life.
ANSWER: **B** cell
[10] Secreted and membrane-bound versions of antibodies are differentiated by alternative sites for this process, in which a particular set of residues is added to the 3-prime end of mRNA.
ANSWER: **polyadenylation** [or **polyadenylate**; prompt on things like "adding a poly-A tail" or "poly-A tail synthesis"]

6. This author used the backs of receipts and calendars to write a series of stories written in extremely small script. For 10 points each:
[10] Identify this Swiss writer who produced "microscripts" in a sanatorium. He also wrote a novel about the title boy who attends the Benjamenta Institute, *Jakob* **(YAH-cub)** *von Gunten*.
ANSWER: Robert **Walser**
[10] Susan Sontag described Wasler as being the "missing link" between this author of *The Marquise of O* and Kafka. This author also wrote about a horse dealer who rebels against a Junker in *Michael Kohlhaas*.
ANSWER: Bernd Heinrich Wilhelm von **Kleist**
[10] In 2000, this author wrote about the "genius" of Walser for the New York Review of Books. His own novels include *The Life and Times of Michael K.* and *Disgrace*.
ANSWER: John Maxwell **Coetzee**

7. Answer the following about David Tudor's influence in classical music for 10 points each.
[10] In "Piano Piece for David Tudor #1", part of the *Compositions 1960* series, the performer is instructed to use a bale of hay and a bucket of water to do this action to a piano.
ANSWER: **feed** it [accept logical equivalents such as “he tried to get the piano to **eat the hay**”]
[10] *Compositions 1960* was written by this minimalist composer and student of David Tudor best known for his ever-evolving piece "The Well-Tuned Piano."
ANSWER: La Monte **Young**
[10] David Tudor gave the first performance of this John Cage piece in which the performer sits in front of the piano and doesn't play for the title length of time.
ANSWER: **4'33"** [accept "**four thirty-three**" or "**Four minutes, thirty-three seconds**"]

8. Alain Locke edited an anthology of writing titled for this person, as well as a magazine issue labeling Harlem the "mecca" of this person. For 10 points each:
[10] Name this person, the namesake of a "movement" founded in the 1920s by W.E.B. DuBois, who was more assertive in standing up to discrimination than his "old" counterpart.
ANSWER: The **New Negro**
[10] This author, nicknamed "the Black Socrates", had his writing prominently featured in *The New Negro*. This author edited the *Negro World* and attacked the concept of the "Harlem Renaissance" on the grounds that it was based on white conceptions of value and ignored prior black authors' achievements.
ANSWER: Hubert **Harrison**
[10] "New negro" radicalism was a major challenge to the more quietist philosophy of this intellectual, who encouraged African-Americans to "cast down your bucket where you are" in his "Atlanta Compromise" speech.
ANSWER: Booker T. **Washington**

9. For 10 points each, answer the following about the Soviet dissident movement.
[10] It crystalized while the Soviet Union was led by this man, the successor of Nikita Khrushchev.
ANSWER: Leonid (Ilyich) **Brezhnev**
[10] Its prominent members included this physicist, who was prevented from leaving the country to receive the 1975 Nobel Peace Prize in person. He now names a prize "For Freedom of Thought" awarded by the European Parliament.
ANSWER: Andrey (Dmitriyevich) **Sakharov** [accept **Sakharov Prize** for Freedom of Thought]
[10] Among those who engaged in dissident activity were Soviet Jews known by this term, referring to the fact that they had been denied permission to emigrate.
ANSWER: **refusenik**s [also accept ***otkaznik****i*]

10. For 10 points each, answer the following about the science that helps fabricate contact lenses and hip replacements, biomaterials and medical devices.
[10] This chemical is often used today to make bone cement which is often used in artificial joints. This synthetic resin, an ester of methacrylic acid, is also known as Perspex or Plexiglas.
ANSWER: **polymethylmethacrylate** or **PMMA** [accept the alternate names of **acrylic** glass, **Crylux**, and **Lucite**]
[10] These expandable tubes can be used to open narrowed arteries and the mesh metal heart version of these objects is put into arteries during an angioplasty. The drug-eluting type of these objects can interrupt re-narrowing.
ANSWER: **stent**s
[10] This medical device generates electrical impulses to assist the cardiovascular system of people who have abnormal heart rhythms. Sometimes used with a defibrillator, they are inserted beneath the skin.
ANSWER: (artificial) **pacemaker**

11. One member of this non-human species was supposedly distraught when her friend Robin Williams died in 2014. For 10 points each:
[10] Identify this ape species. A person dressed up like this ape appears in a video where people pass basketballs to demonstrate the idea of selective attention.
ANSWER: **gorilla**
[10] Some have suggested that the research involving Koko has been plagued by this research issue. This issue, common in the study of primates, is when researchers choose to mention the part of the observation that confirms their idea. In this phenomenon, bigoted people may interpret satirical cartoons as enforcing bigotry.
ANSWER: **selective interpretation** [accept **selective perception**; prompt on selection bias]
[10] This primatologist was an expert on mountain gorillas in Rwanda until her murder. She wrote the 1983 book *Gorillas in the Mist* about her work at the Karisoke Research center.
ANSWER: Dian **Fossey**

12. In the film version of *Hello, Dolly!*, this man sings the title song at Harmonia Gardens. For 10 points each:
[10] Name this jazz trumpeter, nicknamed "Satchmo" and “Pops” who also sang "What a Wonderful World."
ANSWER: Louis **Armstrong**
[10] Armstrong got his start playing with this fellow New Orleans cornetist in the Kid Ory Band. His early hits include "Dipper Mouth Blues" and "Sugarland Stomp." With his namesake Creole Jazz Band he recorded "Chimes Blues" and "Snake Rag."
ANSWER: Joe "King" **Oliver** [or Joseph Nathan **Oliver**]
[10] Armstrong took over on lead cornet in the Kid Ory Band after Oliver moved to this city, where his Creole Jazz Band played at Lincoln Gardens. Armstrong joined Oliver in this city, and the two played its Plantation Cafe as members of the Dixie Syncopators.
ANSWER: **Chicago**

13. A man in this story remarks that he has his "death face" after looking in the mirror while shaving;. For 10 points each:
[10] Identify this short story in which the Lieutenant Shinji and his wife Reiko kill themselves instead of suppressing a mutiny against the army.
ANSWER: "**Patriotism**" [or **Yūkoku**]
[10] In addition to "Patriotism," this author also wrote the *Sea of Fertility* tetralogy and *Temple of the Golden Pavilion*.
ANSWER: Yukio **Mishima** [accept names in either order]
[10] In the *Sea of Fertility* tetralogy, Shigekuni Honda recognizes the reincarnated forms of Kiyoaki Matsugae by this distinct physical feature.
ANSWER: All have **three moles** [prompt on partial answer; prompt on birthmarks or equivalents]

14. For 10 points each, answer the following about baseball's "Year of the Pitcher", 1968.
[10] This St. Louis Cardinals starter had a 1.12 ERA in over 300 inning that year and was the Cy Young winner and MVP. He pitched three complete games in 1968's World Series and struck out 17 in Game 1.
ANSWER: Bob **Gibson** [prompt on "Gibby" or "Hoot"]
[10] This team, led that season by 31-game-winner and MVP Denny McLain beat the Cardinals in the epic 7 game World Series in 1968. In this team's most recent World Series appearance, a 2012 loss to the San Francisco Giants, this team was led by Miguel Cabrera and Justin Verlander.
ANSWER: **Detroit Tigers** [accept either]

[10] A pitcher who primarily played for this team, Juan Marichal finished 5th in NL MVP in 1968. Gaylord Perry started his career with this team and, in addition to the Reds, the legendary Christy Mathewson pitched for this team before it moved.

ANSWER: **San Francisco Giants** [also accept just **Giants**, or **San Francisco**, or **New York Giants** as Mathewson pitched for New York before they moved; do not accept New York Yankees but prompt on New York]

15. For 10 points each, answer the following related to a testing procedure meant to increase so-called "conversions" with "call to action" buttons.
[10] Identify this type of testing in which two different versions of a webpage can be displayed to see which one users interact more on average. Websites in e-commerce and media use this testing procedure to see which new features to implement.
ANSWER: **A/B** **(read: "A-B")** Testing [also accept **split testing**]
[10] A/B Testing is used in this business sub-field where businesses sell a product or service. Advertising is part of this field whose "viral" form is often done via internet social networks.
ANSWER: **Marketing** [accept specific types of **marketing** such as **social marketing** or **viral marketing**]
[10] This concept often used in predictive marketing denotes how each interaction affects consumer conversion. A probabilistic method of estimating this concept can help identify touch points by trying to link accounts and devices.
ANSWER: marketing **attribution**

16. A man named Lessing with this surname sponsored the US Chess Championship from 1957 to 1969. For 10 points each: [10] Give this surname of his philanthropist father Julius who donated millions to establish rural schools in the South and was a leader of the Sears, Roebuck and company.
ANSWER: **Rosenwald**
[10] Though noble in its aims of improving education for African Americans in the South, the Rosenwald Fund supported a notorious syphilis study at this Southern school that was established by Booker T. Washington in Alabama.
ANSWER: **Tuskegee University** [also accept **Tuskegee Institute**]
[10] Elsewhere in America, the ideas of this theorist advocated progressive education and hands-on learning and established a Laboratory school while at the University of Chicago.
ANSWER: John **Dewey**

17. Artists in this medium often paint stylized signatures called "tags," and sometimes make prominent use of stencils. For 10 points each:
[10] Name this style of public art that is painted on walls in urban areas. Notable artists in this style include Futura 2000, Blek le Rat, and Banksy.
ANSWER: **graffiti** [prompt on street art]
[10] This contemporary artist was part of the graffiti duo SAMO along with Al Diaz. This friend of Andy Warhol and Keith Haring frequently painted skulls and crowns before his death in 1988. He was nicknamed the "Radiant Child."
ANSWER: Jean-Michel **Basquiat**
[10] A biopic about Basquiat was directed by this neo-expressionist painter. In addition to directing films such as *The Diving Bell and the Butterfly* and *Before Night Falls*, he made a series of paintings on broken plates.
ANSWER: Julian **Schnabel**

18. The General Number Field Sieve is the fastest practical algorithm for solving this problem, which can be done in polynomial time on a quantum computer using Shor's algorithm. For 10 points each:
[10] Name this task which involves decomposing an integer into a product of smaller integers.
ANSWER: (integer) **factorization** [or prime **factorization**; accept word forms of factor]
[10] This mathematician names two popular integer factorization methods, one of which uses a polynomial modulo the input integer to generate a pseudo-random sequence in his namesake "rho" algorithm.
ANSWER: John M. **Pollard**
[10] Pollard's kangaroo algorithm is used to compute the discrete version of this operation. The binary search algorithm in a sorted array works in an average-case runtime described by this function.
ANSWER: (discrete) **log**arithm

19. Answer some questions about roses in poetry, for 10 points each:
[10] This author's poem "Advice to a Prophet" invokes the "rose of our love and the clean / Horse of our courage" and implores the reader to "ask us whether with the worldless rose / our hearts shall fail us."
ANSWER: Richard **Wilbur**
[10] A poem by James Oppenheim which was adapted into a protest song used by the early 20th century labor movement declared that "it is *this substance* we fight for, but we fight for roses too." That poem is titled for this substance "and roses."
ANSWER: **bread**
[10] Gregory Corso, a poet from this movement, wrote an ode "To a Downfallen Rose." Other members of this literary movement included William S. Burroughs and Allen Ginsberg.
ANSWER: **Beat** Generation

20. This man argued that "wild men" such as Thiess of Kaltenbrun and Alpine folk witches were remnants of a pan-European religion in his *The Night Battles*. For 10 points each:
[10] Name this historian, also famed for a work centered on the heretic miller Menocchio.
ANSWER: Carlo **Ginzburg**
[10] Ginzburg was a native of this country, where Niccolo Machiavelli wrote a commentary on the ancient Roman historian Livy.
ANSWER: **Italy**
[10] Ginzburg pioneered this genre of historical writing, which focuses on very small areas and spans of time. Other practitioners of this genre include Emmanuel Le Roy Ladurie.
ANSWER: **Microhistory**