

2016 “stanford housewrite”

Edited by Stephen Liu

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PACKET 13

TOSSUPS

1. After his client was asked belligerent questions about his support for this group, Brendan Sullivan stated, “I am not a potted plant. I’m here as a lawyer.” Leaders of this group included Steadman Fagoth, the founder of MISURA, and a man nicknamed “Dimas” whose followers were known as “green corn.” Gary Webb’s book *Dark Alliance* examines the role this non-American group played in the Los Angeles crack cocaine epidemic. National Security Decision Directive 17 targeted this group, which used the training manual *Psychological Operations in (*) Guerrilla Warfare*. The National Endowment for the Preservation of Liberty funneled money to this group’s constituent organizations, which included the FDN and UNO. The Boland Amendment prohibited the CIA from aiding this group, but Oliver North did so anyway. For 10 points, name these anti-Communist insurgents who fought the Sandinistas in Nicaragua with covert support from the proceeds of American arms sales to Iran.
ANSWER: Contras [accept MISURASATA before mention]
2. The Matthews correlation coefficient is used to evaluate the results of this task, which has informedness and markedness as chance-correct unidirectional components. Kernel density approximation using adaptive bandwidths is a common approach to this task. The theoretical basis for some methods of performing this task is to find a maximum-margin hyperplane, or a perceptron. Linear discriminant analysis, or LDA, is useful for doing (*) dimension reduction for the purpose of this task. One variant of this task employs either one vs. rest or one vs. one strategies. The success of this task is often evaluated using an F1-score, which is the harmonic mean of precision and recall. Designing a spam filter is a classic application of the naïve Bayesian method of this task, and the binary version of this task may be performed with a logistic regression. For 10 points, name this supervised statistical learning method in which one tries to determine what subset an observation belongs to.
ANSWER: classification [accept more specific answers, like binary classification or multiclass classification]
3. This country is home to a church whose design combines Brick Expressionism with an overall Gothic layout, and whose famous stepped-gable west façade resembles a church organ with V-shaped bands. In a design by an architect from this country, a spiral staircase ascends into a pyramid resting on three ferro-concrete legs. The Svaneke Water Tower is located here, as is a Royal Library whose waterfront extension is shaped like an angled prism with granite cladding, lending it the name Black Diamond. This home of Grundtvig’s Church produced an architect who was inspired by the bazaars of Isfahan to create a central hall flanked by rooftops made up of (*) curving semi-cylindrical columns. The Kuwait National Assembly Building was designed by a man from this country who also worked with Ove Arup & Partners on a building that is structured as two sets of concave parallel white shells. For 10 points, name this country home to the architect of the Sydney Opera House, Jørn Utzon.
ANSWER: Denmark
4. The titles of the some of the works in this collection may have been influenced by a piece for violin and continuo by Francesco Antonio Bonporti. Earlier versions of the works in this collection appeared in another of their composer’s compilations, where they were classified as Fantasias and Praeambulae. That other collection was created for the composer’s son and was called *Klavierbüchlein*. The first work in this collection opens with a sixteenth rest, followed by the right hand playing C-D-E-F-D, after which the left hand comes in with the same figure an octave lower on beat three. The thirty compositions in this collection are found in fifteen common (*) keys and are arranged in ascending chromatic order. The second half of the works in this set are called sinfonias and are three-part versions of this collection’s title type of work. For 10 points, name these contrapuntal works written as keyboard exercises for the students of the composer of *The Well-Tempered Clavier*.
ANSWER: Johann Sebastian Bach’s Inventions and Sinfonias [or Bach’s Two-Part and Three-Part Inventions]

5. **One form of this quantity may be modified to account for the effects of torsion via addition of the Nieh-Yan term. Another form of this quantity is defined such that the area of a worldsheet has the property of Lorentz invariance. This quantity equals the tautological one-form of the Hamiltonian flow on a cotangent bundle. In general relativity, this quantity is proportional to the spacetime integral of the product of scalar curvature and the (*) square root of the negative determinant of the metric tensor. This quantity's derivative with respect to the generalized coordinates is zero by Hamilton's principle. In the path integral formalism, the weight of a trajectory is given by the exponential of this quantity times i over \hbar . For 10 points, name this quantity that equals the time integral of the Lagrangian.**
ANSWER: action [prompt on "S"; accept specific examples, e.g. Einstein-Hilbert action]
6. **A mayor of this city wrote a ballad-opera about the Pocahontas story titled *The Indian Princess*. In this city, the arrest of Charles Naylor provoked a mob to attack the arsenal at St. Philip Neri's Church. Caesar Rodney defended this city's Society of Journeymen Cordwainers in the first American court case concerning a labor strike. In 1854, the state containing this city passed the Act of Consolidation, which merged its territory with the surrounding county, to improve the efficiency of law enforcement in events like the nativist Bible Riots in (*) Kensington and Southwark. As head of the Family Party, George Dallas served as the mayor of this city, where Richard Allen founded the African Methodist Episcopal Church in 1794. After the Conestoga Massacre, the Paxton Boys marched on this city, which suffered a yellow fever epidemic in 1793. For 10 points, name this city that served as the first capital of the United States and hosted the Constitutional Convention in its Independence Hall.**
ANSWER: Philadelphia
7. **This sect split along geographical lines after the passage of the Gardiner Spring Resolutions. A sermon by Harry Emerson Fosdick sparked a controversy in this sect centered on whether it was necessary to accept doctrines like the inerrancy of the Bible and the virgin birth of Christ in the light of recent advances in science. Leaders of this sect issued the Portland Deliverance and excommunicated Charles Briggs in response to a sermon in support of Higher Criticism that he gave at Union Theological Seminary. Historical schisms within this sect include the Old School-New School and (*) Fundamentalist-Modernist controversies. The highest position in this sect's namesake system of church organization is Moderator of the General Assembly, and its basic unit is the session, which consists of an elected group of ruling elders. For 10 points, identify this Protestant denomination that traces its roots to a namesake Scottish Reformation movement led by John Knox.**
ANSWER: Presbyterianism [accept any answer containing the word Presbyterian]
8. **The relative strengths of the driving mechanisms of this process may be determined using a triangular Teas graph. A parameter characterizing this process may be calculated via the Wodak-Janin approximation or the Shrake-Rupley algorithm. Empirical models of this process include the Abraham and Eisenberg-McLachlan equations. The influence of this process on the kinetic isotope effect is quantified by the Kresge-Gross-Butler equation. EEF1 and COSMO are implicit models of this process, which occurs at a rate dependent on the (*) accessible surface area. This process' Gibbs free energy is proportional to "one over vacuum permittivity minus one over relative permittivity" in the generalized Born model, which does not take into account the effect of polar molecules forming this process' namesake "shells" around central ions. For 10 points, name this process that occurs at a lower rate than precipitation above the saturation concentration of the solute.**
ANSWER: solvation [or dissolution]
9. **In one theater of this war, Antonio Zeno lost control of Chios after being defeated the Battle of the Oinousses Islands. Francesco Morosini earned the nickname Peloponnesiacus for conquests during this war that led to the establishment of the Kingdom of the Morea, a colony of Venice. Antonije Zmoric's Serbian Militia fought in this war, whose Russian theater resulted in the capture of Azov. A surprise attack during a bridge crossing gave Eugene of Savoy a lopsided victory late in this war, while in its early stages a man stated, "I came, I saw, (*) God conquered." That king helped Habsburg general Charles V, Duke of Lorraine to win a major battle in this war while leading his Winged Hussars. The Battle of Zenta was the decisive blow in this war, one side of which was organized by Innocent XI into an alliance for which the war is sometimes named. This war was ended by the Treaty of Karlowitz. For 10 points, name this war between Christians and the Ottomans that included the Battle of Vienna.**
ANSWER: Great Turkish War [or War of the Holy League; or Austro-Turkish War of 1683]

10. After being cursed by this figure, Hadding was shipwrecked in a storm and shunned by all strangers that he came across after being washed ashore. In that story, this figure dropped amber into the seas as she searched for her husband, who had been changed into a dragon. Because he was Christian, Ivar the Gleam was able to end a 143-year war caused by this goddess in which the armies of Hedinn and Högni killed each other every night, only to rise again the next day. In the opening of the *Sörla þattr*, this mother of (*) Hnoss wins a prized possession whose name means “gleaming torc.” In a different text, this goddess listens to Hyndla as the latter recites the genealogy of her lover Ottar, who this figure disguises as a boar. While half of those who died in battle went to Valhalla, the other half were received by this deity in her realm Fólkvangr. This owner of the necklace Brisingamen cried tears of gold and rode a chariot pulled by cats. For 10 points, name this Norse goddess of love and beauty.
ANSWER: Freyja
11. At one point in this novel, the daughter of the protagonist gets a slap on the wrist from her duenna after she sets one of her classmates on fire. After the engineer Cifuentes is shot at, this novel’s protagonist saves the “nude dancer” Teresa from being arrested at the seedy Shanghai Theater. The protagonist of this novel walks in on another character wearing his Uhlan uniform shortly before discovering that character has cracked a code written in a copy of Charles (*) Lamb’s *Tales from Shakespeare*. This novel’s protagonist accidentally kills a dog with a poisoned glass of whiskey while speaking at a luncheon for the European Traders association, and wins a checkers drinking game against a man who owns a cigarette case made of human skin, Captain Segura. Hawthorne sends Beatrice Severn to aid the title character of this novel after receiving the schematics for the Atomic Pile. For 10 points, name this novel about James Wormold, a vacuum-salesman-turned-spy, written by Graham Greene.
ANSWER: *Our Man in Havana*
12. Vitamin C and valproic acid are examples of [emphasize] “small molecules” that are included in high-efficiency protocols for inducing this property. Flow cytometry tests look for SSEA-1 as a marker for this property, and *NANOG* is a gene that is key to maintaining this property. *OCT4*, *SOX2*, *KLF4*, and *c-MYC* were discovered to be four highly-expressed transcription factors associated with this property. Those transcription factors are now named for the (*) Japanese biologist who made that discovery. Yamanaka and John Gurdon won the Nobel Prize for Medicine for developing a method that can “reprogram” a mature cell to have this property. A type of cell that possesses this property is notably derived from the inner mass cell of the blastocyst. This property for a cell means that, aside from the placenta, it can form any tissue in the human body. For 10 points, identify this property possessed by embryonic cells that is distinct from “multipotent” and “totipotent.”
ANSWER: pluripotent stem cells [accept word forms like pluripotency]
13. A cutout by Henri Matisse includes a sketch of this figure’s head wearing a red headband with blue and white stripes. Poet Beatrice Hastings was probably the model for a portrait that shows this figure’s name written on a gray wall, in front of which this figure wears a feathered black hat with a wide brim. That work by Amadeo Modigliani is named for this woman, who holds a cup out to a black servant in the Turkish-themed painting *Sultana Drinking Coffee* by Carle van Loo. A portrait shows this figure wearing a leopard skin over her robes while holding a (*) bow in her hand. That work by Jean-Marc Nattier represents this woman as Diana the Huntress. A black dog places its paws on the green bar of a tambour frame being used by this woman in a work by François-Hubert Drouais. She holds an open book in her hand in a portrait showing her in a flowing turquoise robe decorated with roses. For 10 points, name this patron of François Boucher who supported Rococo arts as mistress to Louis XV.
ANSWER: Madame de Pompadour [or Jeanne Antoinette Poisson, Marquise de Pompadour]
14. A short poem by a writer from this country tells Hesperus that “my two eyes set you sailing embraced, by the side of my true heart’s star,” before repeating, “I know the night no longer.” A long poem from this country declares, “Fate of the innocent, you are my fate!” in a section that opens, “This then is I.” Those works are by a poet from this country who was called “sun-drinking poet” due to perceived optimism in his first collection, *Orientations*. A poem written in this country’s language urges a man to “go firmly to the window” to listen to the music of an invisible procession and to “say goodbye to (*) her, to the Alexandria you are losing.” An island in this country titles a poem whose addressee is encouraged not to be afraid of “Laestrygonians and Cyclops,” and to “hope the voyage is a long one, full of adventure, full of discovery.” For 10 points, name this country that produced the poets of *To Axion Esti*, “The God Abandons Antony,” and “Ithaka,” Odysseas Elytis and Constantine Cavafy.
ANSWER: Greece

15. **The cognitive-affective processing model posits that this ability is correlated positively with using “cool” cognitive strategies instead of “hot” cognitive strategies. Failure to perform this psychological, non-economic ability can be modeled formally using hyperbolic utility functions that demonstrate an individual’s dynamic inconsistency. Failure to perform this ability correlates with high ventral striatum activity, and this ability is directly opposed by (*) temporal discounting. This ability was discovered to be correlated with higher SAT scores by Walter Mischel, who studied this ability in an experiment in which subjects were left in a room with the namesake object. Many of those subjects would bang on the table or squirm as they struggled to contain themselves to obtain a second of the namesake snack. This capacity was tested for in the Stanford marshmallow experiment. For 10 points, identify this ability to resist immediate reward in favor of waiting for a later reward.**
ANSWER: delay of gratification [or deferred gratification or delaying reward; accept anything that suggests waiting for or delaying or improperly discounting some reward or gratification; prompt on willpower or self-control or self-regulation]
16. **In a text written by this man, he states that he does not want to embody Tonio Kröger’s “dreams of uniting a chaste north to a passionate south.” That text by this author defines the “crux” of the title condition as “a lack of conventional means to render our lives believable,” and cites an explorer’s description of a Patagonian native shocked to see his own reflection in a mirror. This author called for literature to create an “opposite utopia” at the end of a work whose opening paragraph discusses Antonio Pigafetta’s fanciful account of the New World. He claimed that (*) “Latin America neither wants, nor has any reason to be, a pawn without a will of its own,” in a speech that quotes a William Faulkner statement delivered on a similar occasion: “I decline to accept the end of man.” This man used the title, “The Solitude of Latin America” for the acceptance speech for his 1982 Nobel Prize in Literature. For 10 points, name this Colombian author of *One Hundred Years of Solitude*.**
ANSWER: Gabriel Garcia Marquez
17. **Both the *Greek Anthology* and John Malalas describe a Libyan-born man who gained fame for his actions at this location, before changing his name to Calliopas and leading an attack on a Jewish synagogue in Antioch. That man, Porphyrius, was the dedicatee of seven monuments at this place, which also holds a bronze pillar consisting of three intertwined snakes. The Serpent Column was moved from Delphi to this structure, which also contains the Walled Obelisk and the Obelisk of Theodosius. The eastern side of this place had a section called the *kathisma* that was (*) reserved for the emperor. This location was the traditional site of acclamation for new emperors before coronations were instituted by Leo the Thracian. This place was held by a mob that proclaimed Hypatius emperor in 532, causing Mundus and Belisarius to massacre the Blues and Greens. For 10 points, name this central site of the Nika riots, a stadium in Constantinople used for, among other things, chariot racing.**
ANSWER: Hippodrome of Constantinople
18. **Aubrey Plaza once had an awkward encounter with this professional athlete, in which she pretended to be a makeup artist and allegedly did his hair. In one SNL sketch, Jay Pharoah did a Stephen A. Smith impression where he said that this athlete should be locked in a small closet “where there are no basketballs or round objects of any kind.” This athlete urged kids to learn computer science in an op-ed for Wired titled “Here’s Why You Should Learn to Code.” NBA 2K16 replicated an instance in which this player photobombed his teammate by suddenly (*) rising into view of the camera, eclipsing his teammate’s interview. This player was the fourth pick in the NBA draft in 2003, when he left Georgia Tech to become the center of a team that later included Andrea Bargnani and DeMar DeRozan. For 10 points, name this NBA player who played for the Toronto Raptors before joining Dwyane Wade and LeBron James in the Miami Heat’s “Big 3.”**
ANSWER: Chris Bosh
19. **This concept is exemplified in a figure who is attracted to the “durability of a stone” and denies the racism of the world and its social institutions. One thinker used the figures of the Narcissist, the Woman in Love, and the Mystic to illustrate this concept. A different thinker demonstrated this concept by describing a woman on a first date who misconstrues compliments about her physical appearance as compliments about her consciousness. This concept can refer to those who refuse to stop being children and is used to describe women who try to attain happiness by (*) subjecting themselves to the Other. This concept is illustrated with the example of a waiter who tries to conform to his idea of what a waiter should be. This concept may be surpassed if one’s facticity and transcendence are in harmony and is discussed at length in *Being and Nothingness*. For 10 points, name this concept central to the work of Jean-Paul Sartre, a condition in which one does not live authentically.**
ANSWER: bad faith [prompt on inauthenticity or deception or similar]

20. This poem's speaker feels a "fierce fire [crawling] about a thousand people" and hears "a thousand screams" when two ships sink after crashing at sea. That speaker is subjected to a power that shows her the "gossiping of friendly spheres" and "[t]he How and Why of all things," making her feel like a "fearful pawn." This poem caused a scandal after losing to an Orrick Johns work in a poetry contest held by *The Lyric Year*. Twice, this poem describes a "drenched and dripping apple-tree," soaked by a rain that "wash[es] my grave away from me." The speaker of this poem, which was written from Mt. Battie in (*) Camden, Maine, tries to touch the sky as Infinity descends on her. This poem's speaker imagines being buried in the ground and then being raised back out of it, and concludes that "he whose soul is flat—the sky will cave in on him by and by." For 10 points, name this poem by Edna St. Vincent Millay that begins, "All I could see from where I stood was three long mountains and a wood."
ANSWER: "Renascence"

BONUSES

1. Among this composer's keyboard works are his "Ten Tunes for Clay's Musical Clock" and "A Voluntary on a Flight of Angels," both of which were written for the clock-organ. For 10 points each:
[10] Name this composer who also created oratorios like *Jephtha*, *Israel in Egypt*, and *Messiah*.
ANSWER: George Frederic **Handel**
[10] This is the common name of the *Air and variations* final movement of Handel's Suite No. 5 in E minor for harpsichord.
ANSWER: *The **Harmonious Blacksmith***
[10] The third movement of that harpsichord Suite No. 5 is in the Italian style of this type of composition. It is based on a dance whose French version is typically in three-two or six-four time and is the slowest of all French dances.
ANSWER: **courante** [or **corrente**]
2. One of this author's essays describes wandering through London after setting out to buy a lead pencil. For 10 points each:
[10] Name this author of "Street Haunting" who, in another essay, praised the sentence "Chloe liked Olivia." That essay by this author cites Coleridge's claim that "a great mind is androgynous."
ANSWER: Virginia **Woolf**
[10] This Virginia Woolf essay uses the example of Shakespeare's hypothetical sister, Judith, to argue that a woman requires the title location to write fiction.
ANSWER: *A **Room of One's Own***
[10] "Street Haunting" appears in this Woolf nonfiction collection. In its title essay, Woolf recalls watching an insect slowly expire outside her window.
ANSWER: *The **Death of the Moth***
3. In this technique, high-energy photons are shot at a sample to excite core electrons into the continuum, and K-edge, L-edge, and M-edge excitations are often used. For 10 points each:
[10] Name this technique often used to obtain information about the structure of a complex from its EXAFS region.
ANSWER: **X-ray Absorption** spectroscopy [or **XAS**]
[10] The edge energy of an XAS spectrum can give information about this quantity for a metal, which, along with spin state, can also be deduced from an isomer shift in Mössbauer spectroscopy. The isomer shift decreases as this quantity increases.
ANSWER: **oxidation state**
[10] The intensity of the pre-edge region of an XAS spectrum is related to this quantity, which is 6 for octahedral complexes and 4 for tetrahedral complexes.
ANSWER: **coordination number** [accept more general answers like **number of ligands**]
4. Marsden Hartley's portrait of this artist shows him in a saint-like manner, giving him a full white beard that matches his white cap and jacket. For 10 points each:
[10] Name this painter who showed Rosalind and Celia in the corner of a woodland scene in his *The Forest of Arden*. He also depicted a ghostly scythe-wielding figure riding a horse around a track in his *Death on a Pale Horse*.
ANSWER: Albert Pinkham **Ryder**
[10] Ryder started painting this work at midnight after coming home from Wagner's *Ring Cycle*. A dull yellow moon can be seen between two branches in this work, in which a large tree separates a knight from bathing nymphs.
ANSWER: ***Siegfried and the Rhine Maidens***
[10] This other artist also painted a version of death riding a pale horse, but is best-known for a painting in which an Indian looks on thoughtfully as the title soldier dies on the Plains of Abraham, his *The Death of General Wolfe*.
ANSWER: Benjamin **West**

5. Allosteric antagonists for this molecule include picrotoxin and bicuculline, and it can be secreted by chandelier cells. For 10 points each:
[10] Name this excitatory neurotransmitter produced by a namesake “shunt” in the brain. Receptors for this neurotransmitter are divided into “A” and “B” types, and are the target of drugs like barbiturates.
ANSWER: gamma-aminobutyric acid [or GABA]
[10] GABA is primarily synthesized in the soma of neurons and then brought to the synapse via the fast anterograde pathway of axoplasmic transport, which uses this plus-end-directed motor protein to move along a microtubule skeleton.
ANSWER: kinesin [do not accept “dynein”; all clues are specific to kinesin]
[10] While A-type GABA receptors are ligand-gated chloride channels, B-type receptors are GPRs that eventually stimulate an efflux of this ion. Neurons contain “pumps” that couple fluxes in this ion with fluxes in sodium ions.
ANSWER: potassium ions [or K⁺ ions]
6. While this man was seeking military aid with the Huns on behalf of Joannes, Valentinian III’s generals Ardabur and Aspar took Ravenna, killing Joannes and leaving the West in the hands of Galla Placidia. For 10 points each:
[10] Name this Roman general, often called the “Last of the Romans,” who is most famous for defeating Attila the Hun at the Battle of the Catalaunian Plains.
ANSWER: Flavius Aetius
[10] The semi-legendary Merovech fought at the Catalaunian Plains as the leader of these people. Merovech gives his name to the Merovingian dynasty, which was eclipsed by the Carolingian dynasty as rulers of these people.
ANSWER: Franks
[10] Another man sometimes called the “Last of the Romans” is this rival of Aetius. This man brought the Vandals to Africa while governor there, and died of his wounds after defeating Aetius at the Battle of Rimini.
ANSWER: Bonifacius [or Count Boniface]
7. Participants in this event protested Lee Ki Boong’s victory in the recent vice presidential election, which came at the heels of the suspicious deaths of presidential candidates Cho Bong-Am and Cho Byeong-Ok. For 10 points each:
[10] Name this series of protests in Seoul, named for the date on which students marched on the Blue House. It took place after Kim Ju-Yul was found dead in the harbor of Masan, killed by a tear gas grenade.
ANSWER: April 19 Revolution [accept April 19 Movement or Sa-II-Gu]
[10] This first president of South Korea was forced to step down following the April 19 Revolution. Afterward, he lived in exile in Hawaii with his Austrian wife, Franziska Donner.
ANSWER: Rhee Syngman
[10] A year later, this dictator came to power through the May 16 coup and ruled South Korea as its third president until he was assassinated by Kim Jae-Gyu, his chief of intelligence. He was the target of the Blue House Raid.
ANSWER: Park Chung-Hee
8. In a recent speech to three state media companies, this man said that “all news media run by the party must work to speak for the party’s will and its propositions, and protect the party’s authority and unity.” For 10 points each:
[10] Name this leader who has expanded on his predecessors’ policies of “public opinion guidance” and “public opinion channeling” with his “48-character policy” of “public opinion struggle.” He also introduced the Four Comprehensives and the China Dream.
ANSWER: Xi Jinping
[10] The Chinese central government issued policies in February 2016 to clamp down on the supply of this commodity, the sale of which is the most important source of revenue for most local governments. This commodity is officially held collectively in rural areas and by the state in urban areas.
ANSWER: land
[10] This Director of former president Hu Jintao’s General Office is the most recent top official to be implicated in President Xi’s anti-corruption campaign. He was arrested in July 2015 after his younger brother Wancheng fled to the United States, and his son Gu died in 2012 in a Ferrari crash in Beijing.
ANSWER: Ling Jihua

9. This work describes its author's concept of "survivals," which are vestiges of old beliefs or customs that remain a part of society despite the process of evolution. For 10 points each:
 [10] Name this work of anthropology that describes how animism gives way to religious evolution in the second of its two volumes.
 ANSWER: Primitive Culture
 [10] This anthropologist, who is not Edward Tylor, developed a concept of cultural evolution. This anthropologist defined a unit called an "ethna" in a book that describes the relationship between the household and the family. He also established a link between social development and technology.
 ANSWER: Lewis Henry Morgan
 [10] Morgan's *Ancient Society* influenced this man's work *The Origin of the Family, Private Property, and the State*. He was also one of the co-authors of *The Communist Manifesto*.
 ANSWER: Friedrich Engels
10. An international conference in Hamburg, Germany in 2007 recommended the full re-establishment of this religious group. For 10 points each:
 [10] Name this religious group whose members are called *bhikkuni* and must take additional vows called the Eight Garudhammas, which are harsher than the normal rules of *vinaya* and subordinate them to their male counterparts.
 ANSWER: Buddhist nuns [prompt on "nuns" or "monastics"; do not accept "women"]
 [10] Until very recently, it was illegal to become a Buddhist nun in most countries where this sect of Buddhism is predominant. Members of this sect strive to become arhats by following the teachings collected in the Pali Canon.
 ANSWER: Theravada [or Hinavana]
 [10] This is the first of the four stages of enlightenment in Theravada Buddhism, preceding the once-returner, the non-returner, and the *arhat*.
 ANSWER: stream-enterer [or stream-entrant; or stream-winner; or srotapanna]
11. The most likely decay mode of a Higgs boson is into one of these particles and its antiparticle. For 10 points each:
 [10] Name these particles whose jets are relatively easy to identify because they exhibit secondary vertices that do not originate at collision points.
 ANSWER: bottom quarks
 [10] The relative probabilities of the flavor-changing decays of bottom quarks are given by the elements in the third column of this triply-eponymous matrix.
 ANSWER: CKM matrix [or Cabibbo-Kobayashi-Maskawa matrix]
 [10] The complex phase that arises in the Standard Model parameterization of the CKM matrix corresponds to the violation of this symmetry in the weak interaction, as first observed by Cronin and Fitch in neutral kaons. However, all known physical phenomena obey the combination of this symmetry and T-symmetry.
 ANSWER: CP symmetry [or charge-parity symmetry]
12. Answer the following about female participation in the American Revolution, for 10 points each:
 [10] This wife of a Founding Father advised her husband to "remember the ladies" in a March 1776 letter. She and Barbara Bush are the only two women to have both married and given birth to presidents.
 ANSWER: Abigail Adams [prompt on "Adams"]
 [10] Patriot women in this American colony vowed to support the non-importation movement at the Edenton Tea Party. Charles Fox remarked "another such victory would ruin the British empire!" after Charles Cornwallis defeated Nathaniel Greene at a 1781 battle in this colony.
 ANSWER: North Carolina
 [10] This Massachusetts woman disguised herself as a man named "Robert Shurtleff" and enlisted in the Continental Army. She served until the end of the war with her identity kept secret, and later became the first woman to receive a military pension.
 ANSWER: Deborah Sampson [or Deborah Sampson Gannett]

13. This experiment operates a pair of Michelson interferometers in Livingston, Louisiana and Hanford, Washington. For 10 points each:
 [10] Name this experiment that made the first direct observation of gravitational waves on September 14, 2015.
 ANSWER: Advanced **LIGO** [or **Laser Interferometer Gravitational-Wave Observatory**]
 [10] Hulse and Taylor discovered a binary one of these stars whose orbital decay provides strong indirect evidence for the existence of gravitational waves.
 ANSWER: **pulsars**
 [10] Primordial gravitational waves are theoretically detectable in this feature of the cosmic microwave background.
 ANSWER: **B-mode** polarization
14. One work by this poet describes “the child’s bed” as “that warm world where people work and suffer for the end that crowns the pain—in that Cloud-Cuckoo-Land.” For 10 points each:
 [10] Name this poet who, in his poem “90 North,” wrote, “Pain comes from the darkness and we call it wisdom. It is pain.” He also wrote “The Woman at the Washington Zoo.”
 ANSWER: Randall **Jarrell**
 [10] Randall Jarrell’s most famous poem is about the death of one of these people, who is washed “out of the turret with a hose.” Wilfred Owen wrote about these people “bent double, like old beggars” during a gas attack.
 ANSWER: **soldiers** [accept **ball-turret gunner**]
 [10] This critic and poet wrote *Randall Jarrell and His Age*. In an essay on Susan Wheeler, this Harvard professor and author of *Close Calls with Nonsense* coined the term “elliptical poetry” to describe a contemporary movement.
 ANSWER: Stephen **Burt**
15. This figure tasked a man with capturing a fire-breathing stallion from the mountain of Hiisi and shooting down the black swan of Tuonela as requirements for marrying her daughter. For 10 points each:
 [10] Name this ruler of Pohjola and villain of the *Kalevala*. She turned herself into an eagle to pursue Vainamoinen as he made off with the Sampo, but dropped it into the sea where it broke into pieces.
 ANSWER: **Louhi**
 [10] Louhi called on Loviatar, the daughter of the death god Tuoni, to give birth to nine of these entities that she sent to ravage Kalevala. An Aztec goddess who presided over confessions also wielded power over these things.
 ANSWER: **diseases**
 [10] In Book I of the *Iliad*, this god spreads a plague through the Greek camp at the request of his Chryses, a priest of this god whose daughter Chryseis was taken by Agamemnon. This Olympian was also the god of healing.
 ANSWER: **Apollo**
16. The Commissioner observes that this action will make for a good paragraph in the book he is writing, entitled *The Pacification of the Primitive Tribes of the Lower Niger*. For 10 points each:
 [10] Name this action undertaken by a character after he kills a British messenger with a machete. In its aftermath, Obierika tries to explain to the Commissioner why his tribesmen will not touch a certain corpse.
 ANSWER: **Okonkwo’s suicide** [accept any answer that indicates **Okonkwo** is **hanging himself**]
 [10] Okonkwo kills himself at the end of this man’s novel *Things Fall Apart*.
 ANSWER: Chinua **Achebe** [or Albert Chinualumogu **Achebe**]
 [10] After killing his adopted son Ikemefuna, Okonkwo remembers hearing the cries of twins left in this location to die. The villagers of Umuofia consider this place taboo, and force the missionaries to establish their church in it.
 ANSWER: the **Evil Forest** [prompt on “forest”]
17. Along with its northern neighbor, this country is home to a musical genre in which a solo vocalist sings a story while a second performer beats a drum, called *pansori*. For 10 points each:
 [10] Name this Asian country home to a pioneer of video art who had Charlotte Moorman draw her bow across three stacked television screens for his *TV Cello*. This country produced Nam June Paik and director Park Chan-Wook.
 ANSWER: **South Korea** [or **Republic of Korea**]
 [10] This video installation by Paik, named for a phrase he coined, consists of a large map of the United States with state borders formed by neon lights. Each state is filled in with a set of television screens showing a unique feed.
 ANSWER: **Electronic Superhighway**: *Continental U.S., Alaska, Hawaii*
 [10] This artist’s foray into video art includes his *Hand Catching Lead*, a film showing his hand repeatedly trying to grab at a falling piece of lead. This sculptor used very large sheets of metal for *The Matter of Time* and *Tilted Arc*.
 ANSWER: Richard **Serra**

18. This work disagrees with Nietzsche's characterization of saints as weak, slavish people, and the third lecture in this work argues for the "reality of the unseen." For 10 points each:
[10] Name this work that contrasts the "healthy-minded" with the "sick soul" and categorizes the title phenomena as ineffable and noetic.
ANSWER: The *Varieties of Religious Experience*
[10] *The Varieties of Religious Experience* is based on lectures by this American pragmatist who also authored *The Will to Believe* and *The Principles of Psychology*.
ANSWER: William James
[10] William James called this 19th century American philosophical movement the "religion of the healthy-minded." This movement was led by Phineas Quimby, who taught Mary Baker Eddy and claimed that God is infinite and everywhere.
ANSWER: New Thought
19. These people were the subject of the 1997 report *Bringing Them Home*. For 10 points each:
[10] Give this two-word term referring to the children whose experiences are commemorated on National Sorry Day.
ANSWER: Stolen Generations
[10] The Stolen Generations belonged to the indigenous people of this country, to whom Kevin Rudd's government issued an official apology in 2008.
ANSWER: Australia
[10] This other two-word term is a pejorative name for the leading school of thought in Australia's "history wars". Its opponents argue that members of this school of thought over-exaggerate the extent of the historical mistreatment of indigenous Australians due to their own feelings of white guilt.
ANSWER: black armband school
20. The title of this play comes from a conversation Clotaldo and Segismundo have in its second act about the nature of reality. For 10 points each:
[10] Name this play in which Basilio allows Segismundo to succeed him as King of Poland after Segismundo spares his life in battle.
ANSWER: *Life Is a Dream* [or *La vida es sueno*]
[10] This Spanish Golden Age playwright wrote *Life Is a Dream*. Pedro Crespo hangs his daughter's rapist, Don Alvaro, and is appointed to the title position by Philip II in his play *The Mayor of Zalamea*.
ANSWER: Pedro Calderon de la Barca [or Pedro Calderon de la Barca y Barreda Gonzalez de Henao Ruiz de Blasco y Riano]
[10] In *Life Is a Dream*, Clotaldo spares Rosaura's life after he confiscates one of these objects from her. This object makes Clotaldo realize that Rosaura is his long-lost daughter.
ANSWER: Rosaura's sword