

2016 “stanford housewrite”

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PACKET 4

TOSSUPS

- In *comatose* mutants of *Drosophila*, a protein necessary for this *specific* process is malformed. That ATPase, which can be inactivated by N-ethylmaleimide, is called NSF. Before this *specific* process begins, Rab effectors help recruit its participants, and they are dephosphorylated and recycled once it is complete. Depending on its conformation, complexin is either an inhibitor or promoter of this process. A superfamily of proteins that facilitate this process includes syntaxin and (*) VAMP; during this process, two members of that superfamily form a four alpha-helix bundle in a process called “zippering.” James Rothman won the Nobel Prize for his investigation of this process. v- and t-SNAREs connect to begin this process, whose “kiss-and-run” type does not require clathrins for recapture. For 10 points, name this process preceded by docking, in which a vesicle releases its contents by merging with the cell membrane.**
ANSWER: vesicle **fusion** [accept equivalents; prompt on **exocytosis**]
- This scientist names a set of quantum states that correspond classically to an isosceles triangle configuration of the orbits of two electrons and the nucleus of a helium atom. Garner, Meek, and Patrick added correction terms to an equation for calculating atomic charge that this scientist co-names with Lewis. This scientist is the second alphabetical namesake of an apparatus used to deposit amphiphilic thin films on solid substrates, as well as a process in which two molecules (*) adsorb onto neighboring sites of a heterogeneous catalyst. In addition to proposing that reaction mechanism along with Hinshelwood, this scientist developed a model that is equivalent to the biological Hill equation and is extended to multiple layers by the BET isotherm. For 10 points, what scientist is the namesake of a type of plasma oscillation with higher frequency than an Alfvén wave?**
ANSWER: Irving **Langmuir** [accept **Langmuir** states, Lewis-**Langmuir** equation, **Langmuir**-Blodgett trough, **Langmuir**-Hinshelwood mechanism, or **Langmuir** wave]
- In a dream sequence, this cinematic character imagines a Dreamland full of angels that is invaded by devils, who conjure a woman to seduce this character as he boringly strums a harp. In a climactic scene, this character tells his female companion to put a smile on as they begin to embark down a road with their backs to the camera. That scene occurs after this character sings a song at a restaurant that repeats the ridiculous refrain “la twee la twa.” Though he isn’t Werner Herzog, this character cooks and eats a (*) shoe in a wobbling cabin that is blown off a cliff by a blizzard. In one appearance, this character rescues a millionaire from drowning himself and uses the millionaire’s money to restore a blind girl’s sight. Another film begins with him being harassed by a machine that unsuccessfully tries to feed him. For 10 points, identify this cane-wielding, bowler-wearing silent film protagonist of *Gold Rush* and *Modern Times*.**
ANSWER: The **Tramp** [accept **Lone Prospector** or **Factory Worker**; reluctantly accept **Charlie Chaplin**]
- In one paper titled for this concept, a thinker uses a thought experiment in which we ask John Updike a series of questions about Rabbit Angstrom to model interpersonal interactions. That paper argues treating this concept as a concrete object would be a category mistake, calling it a “theorist’s fiction.” Part 3 of *Reasons and Persons* describes the branch-line thought experiment, which induces a “fission” in this concept, to illustrate that this concept is not what matters. It’s not the future, but in a work titled for this concept, the thinker rewrites a thought experiment in the second person to argue against a (*) memory-based conception of it. Bernard Williams included that rebuke alongside a paper on “ethical consistency” in his work titled for “The Problems of [this concept],” and Daniel Dennett described this concept as a “center of narrative gravity.” Hume argued that this concept does not exist via his bundle theory. For 10 points, name this concept often contrasted with “the other.”**
ANSWER: The **self** [accept **I** or **Myself** or personal **identity**]

5. **The distribution spectrum of these features has peaks at harmonic degrees 2 and 6 that are strongly correlated with the long-wavelength residual geoid. These features are used as a reference frame for calculating true polar wander, and they contain unusually high ratios of helium-3 to helium-4. According to one hypothesis, these features may form at the site of impact events that penetrate the oceanic crust, while in another hypothesis, they are the result of lithospheric extension leading to the passive upwelling of fertile melt. These features create namesake (*) “tracks” that may contain kimberlite fields. W. Jason Morgan proposed the most widely accepted theory of their formation, in which flood basalts and these features represent the heads and tails of mantle plumes, respectively. For 10 points, name these geologic features located far from tectonic plate boundaries that underlie volcanic chains like the Hawaiian Islands.**
ANSWER: **hotspots** [prompt on “mantle plumes”]
6. **Members of this family are buried in the main octagonal section of the Founders’ Chapel at a monastery that is named for the battle that brought this family to power. Venetian cartographer Fra Mauro made a circular world map for a king of this dynasty. The Papal bull *Dum Diversas* confirmed the right of one king from this dynasty to enslave Saracens. Its first king was the illegitimate son of Peter I and won a battle commemorated by Batalha Monastery. Thomas Stukley died fighting for a king from this dynasty whose (*) messianic legend arose from his disappearance during a battle with Abd al-Malik. That ruler, known as “the Desired,” most likely died at that Battle of Alcácer Quibir. The Illustrious Generation, including Ferdinand the Holy Prince, were members of this family, which rose to the throne after John I won the Battle of Aljubarrota. For 10 points, name this family that included Prince Henry the Navigator and was replaced by Philip II of Spain and the Habsburgs as rulers of Portugal.**
ANSWER: House of **Aviz** [accept House of **Aviz-Beja**]
7. **The seventh and final section of a poem dedicated to these people begins, “At last. I come to the last defense.” That poem by John Wieners ends, “It is my life you save. The poem is done.” A Muriel Rukeyser poem titled for these people is set in “the cave with a long-ago flare” and describes a woman using “red twig, black twig, brown twig.” A man of this type says, “It was too much,” in order to explain the lone word “SARDINES” in a poem whose speaker writes poems called “ORANGES” that never mention the color orange. That poem by (*) Frank O’Hara explains why he is *not* one of these people. A Spanish one of them is said to have understood the “people of the world” exactly as they became “suffering humanity” in a poem by Lawrence Ferlinghetti. John Ashbery wrote about one of these people showing his “right hand bigger than the head” in his poem, “Self-Portrait in a Convex Mirror.” For 10 points, name these members of a profession that includes Goya and Parmigianino.**
ANSWER: **painters** [prompt on “artists”]
8. **Pausanias states that, after killing a creature at this location, one god traveled to Tarrha, Crete to be purified by Carmanor. Before being moved to Hyperborea, a structure made by bees from wax and feathers stood at this location. After building a different structure here, the architects Agamedes and Trophonius were granted peaceful deaths as a reward. Apollo assumed the form of a dolphin to lead Cretan priests to this place. Tityos was condemned to being stretched out and pecked at by vultures in Tartarus after trying to rape (*) Leto as she traveled to this location. This place’s residents used the Castalian Spring to cleanse themselves before rituals. A pair of eagles flew from opposite sides of the world and met at this place, where Zeus placed the stone that Cronos swallowed instead of him. At this home of the *omphalos*, Apollo fired a shower of darts into the dragon Python. For 10 points, name this Greek location that was home to a priestess who sat on a sacred tripod, its famous Oracle.**
ANSWER: **Delphi** [or **Delphoi**; accept **Castalian Spring** early]
9. **An artist who gained fame in this city in the 1980s once almost crashed a plane because he convinced himself that he was Casper the Friendly Ghost. That subject of a Jeff Feuerzeig documentary entitled *The Devil and [his name]* made a mural in this city replicating an album cover of his featuring a frog with long eyes and the words, “Hi, How Are You?” This city was the longtime home of the schizophrenic singer-songwriter behind the song “True Love Will Find You in the End,” (*) Daniel Johnston. It also produced a band who wrote a song that opens, “Remember the weight of the world, it’s a sound that we used to buy on cassette and 45.” Another song by that band from this city states, “Life can be so fair, let it go on and on.” “I Summon You” and “You Got Yr. Cherry Bomb,” are songs by a Britt Daniel-fronted band from this city called Spoon. For 10 points, name this city that hosts a film, media, and music festival called South by Southwest and is home to the University of Texas.**
ANSWER: **Austin**

10. In the penultimate section of “Stalking the Billion-Footed Beast,” Tom Wolfe cites an anecdote in which this writer discovers that a horse used by miners has lived in the mines its whole life. This writer called for novelists to test, and not assert, their personal sentiments in an essay that applies Claude Bernard’s theories of physiology to literature. He calls his enemies “mere entities, agents of harm to society” in a work that dares his opponents to try him in court, followed by the statement “I am waiting.” This author of *The Experimental Novel* praised a leader for securing an alliance with (*) Russia and planning the 1900 World’s Fair in a work that was published by the newspaper *L’Aurore*. That work by this author was addressed to Félix Faure and contrasts the guilt of Ferdinand Esterhazy with the innocence of a man who was sent to Devil’s Island. For 10 points, name this French author who charged the government with anti-Semitism in the Dreyfus affair in his article *J’accuse...!*
ANSWER: Emile Zola [or Emile Edouard Charles Antoine Zola]
11. One form of this quantity equals density times the product of the mean and fluctuating components of the flow velocity, and this quantity appears as a consequence of applying Reynolds averaging to the Navier-Stokes equations. Another form of this quantity equals one over four pi times the sum of three terms: the dyadic product of the E-field with itself, the dyadic product of the H-field with itself, and negative one-half times quantity, E squared plus H squared, close quantity, times the unit dyad. The divergence of that form of this quantity gives the (*) momentum flux density of an electromagnetic field. Bingham plastics behave like fluids at high values of this quantity. Representations of this quantity include the Lamé ellipsoid as well as the Piola-Kirchhoff and Cauchy tensors. The von Mises criterion sets yield strength equal to the scalar tensile value of this quantity. For 10 points, name this quantity that appears in the numerator of Young’s modulus.
ANSWER: stress [accept specific types]
12. At the end of this play, a moonbeam shines upon the title character, and throughout the play, characters talk about the moon as if they are talking about the title character. A monarch in this play is disturbed by various omens, such as the sound of a blackbird’s wings beating and his slipping on the blood of a corpse. A character in this play makes references to the Saviour of the World, prompting Tigellinus to speculate whether he is referring to Caesar. A captain known as the “young Syrian” falls in love with the title character and commits suicide upon seeing her (*) pining for another man she vows to kiss. The author of this play was inspired to write it after reading the third of Flaubert’s *Three Tales*. This play, which was originally written in French, was the subject of a series of illustrations by Aubrey Beardsley. For 10 points, name this tragedy by Oscar Wilde in which the title seductress performs the Dance of the Seven Veils and asks her father Herodias for the head of John the Baptist.
ANSWER: Salome
13. A speech calling for this event was ridiculed in a pamphlet called *The Balance* and in a broadsheet image showing an actual giant balance being pressed down on one side by a sword in favor of one side at this event. Partly spurred on by the English ambassador Dudley Carleton, this event provided the justification needed to execute Johan van Oldenbarnevelt. This event called for a translation of the Bible called the *Statenvertaling*, and affirmed the Belgic Confession by adopting principles such as total depravity and unconditional election, victories for Franciscus Gomarus. Precipitated by the preaching of the (*) Five Articles of Remonstrance, this event resulted in the imprisonment of Hugo Grotius and the banishment of many Remonstrants. This event produced a set of eponymous Canons that supported standard Calvinist doctrines. For 10 points, name this 1618-1619 council held by the Dutch Reformed Church to address controversies raised by the followers of Jacobus Arminius.
ANSWER: Synod of Dort [or Synod of Dordrecht; accept Second Synod of Dort]
14. The founder of this colony exploited a local chief’s ignorance of the meaning of the term “geographical mile” to swindle him out of over four times as much land as he thought he was selling. Leaders of rebellions against this colony included Andreas Lambert and Jacobus Morenga, the latter of whom was known as “the black Napoleon.” During World War I, this colony fell to an invasion by a southern neighbor after losing the Battle of Otavi. This colony was the site of unethical medical experiments performed by Hugo Bofinger and Eugen (*) Fischer. Hendrik Witbooi led the Hottentot Uprising in this colony, whose armies systematically poisoned wells in the Omaheke Desert and won the Battle of Waterberg. This colony operated the Shark Island concentration camp during a war where the losing side lost over 80% of its population. For 10 points, name this colony in which Lothar von Trotha ordered a genocide of the Nama and Herero, a former German possession in present-day Namibia.
ANSWER: German South-West Africa [or Deutsch-Südwestafrika]

15. **The authority on this practice in Europe and America is Alexander Schor’s *Simlah Chadasha*, though his advocacy of kiluf as a means of removing sirchot is anathema to Sefardim. The Yoreh De’ah 1:8 prohibits intoxicated individuals from performing this action, while the person who performs this action is enjoined to review the laws concerning it every thirty days. Jens Hunseid referred to this practice as a “religious orgy,” and this practice requires avoiding (*) iqqur, which can result from use of a scratched challaf. Niqqur or porging is the part of this process that involves removal of chelev and the gid ha-nasheh, but that requirement is often skirted by selling the parts that contain those components to non-Jews. A shehiyah or delay during this action renders the result treif, or unkosher. For 10 points, name this practice consisting of a single swift cut with an unpointed knife through an animal’s throat.**
ANSWER: shechitah [accept ritual, animal, Jewish, or kosher slaughter or descriptions like killing animals for food; prompt on descriptions like “killing animals”; do not accept “animal sacrifice”]
16. **A polyptych by this artist contains a three-by-three grid of panels whose rows depict the Golden, Silver, and Iron Ages, with each age represented by Adam, Hesiod and Orpheus, and Cain, respectively. Like most of his best-known works, his *The Life of Humanity* is located in his house-museum in Paris. An unfinished work by this artist was inspired by Carpaccio’s *Ten Thousand Martyrs of Ararat*. This artist of *The Chimeras* painted a woman wearing a revealing dress made up almost entirely of jewels, who raises her arm toward a floating, haloed head with blood pouring from its neck. This friend of Théodore (*) Chassériau placed a Greek god at the top of a massive throne garlanded with flowers in a work in which a woman with an open wound in her thigh recoils at the glory of her divine lover. This artist also painted a mythical beast climbing up a Theban man’s body. For 10 points, name this French Symbolist artist of *L’Apparition*, *Jupiter and Semele*, and *Oedipus and the Sphinx*.**
ANSWER: Gustave Moreau
17. **Some students in this novel go on strike after they are asked to serve as pallbearers for the dog of Headmaster Fraudsham. The poem this novel’s title is taken from describes horrors that “held Hemingway’s hero rooted to sure, clear shallows.” At the beginning of this novel, a character finds that an old woman left a “mountain of shit” at his school, and is later disillusioned by a tea ceremony put on by the KCO. The “potent ginger-lily” and the “speckled vulva of the tiger-orchid” are mentioned along with the title of this novel in “The Swamp” by (*) Derek Walcott. This novel’s central location is developed after several surveyors come to investigate a plane crash and are served a drink brewed from the Theng’eta plant. In this work, Inspector Godfrey looks into the deaths of Chui, Mzigo, and Kimera, who died in the burning of the Sunshine Lodge brothel. For 10 points, name this novel about Munira, Karega, and Wanja’s time in the Kenyan village of Ilmorog, a work by Ngugi wa Thiong’o.**
ANSWER: Petals of Blood
18. **A Supreme Court ruling on this doctrine was decisive in a case in which plaintiffs sought to enjoin the Burnt Ridge Project, a Forest Service initiative that allowed the salvage sale of timber on 238 acres damaged by fire. That decision, *Summers v. Earth Island Institute*, drew heavily from a 1992 case in which this doctrine stopped plaintiffs from applying the Endangered Species Act to development projects abroad. The two-part *Flast* test allows this requirement to be met in the taxpayer context only if unconstitutionality is alleged under Article I, Section 8. This requirement arises from Article (*) III, and was critical to the defendants’ victories in both *Lujan v. Defenders of Wildlife* and the 1923 case that first established it, *Frothingham v. Mellon*. Third parties cannot sue because of this doctrine, which is satisfied when the plaintiff shows injury-in-fact, causation, and redressability. For 10 points, name this legal requirement that establishes a party’s right to have the merits of a lawsuit heard in court.**
ANSWER: standing [or locus standi]

19. **A C major composition of this type gets its nickname from its unusual introduction, in which an A natural note enters while an A-flat note transitions into a G. A different composition of this type is sometimes nicknamed “Hornpipe” because its finale is reminiscent of a British sailor’s dance. That piece’s first movement features prominent violin trills that earned it the nickname of “Lark.” One composition of this type is nicknamed (*) “Dissonance” and is the 19th and final one by its composer. Another work of this type gets its nickname because its rondo contains multiple grand pauses that make the audience think the piece is over. The second movement of one of these works is a set of variations on the melody of the “Deutschlandslied.” Mozart dedicated a set of six of these compositions to Franz Joseph Haydn, who in turn wrote sets of them like “Erdody” and “Russian.” For 10 points, name this type of chamber work written for two violins, a viola, and a cello.**

ANSWER: string quartet [accept Haydn string quartets or Mozart string quartets]

20. **Tax collectors from this state cut down beehive-containing trees in a neighboring state to the north during the Honey War. German-Americans in this state published newspapers like *Anzeiger des Westens* and *Westliche Post* and assisted Nathaniel Lyon in forcing the surrender of pro-slavery militia at Camp Jackson. Two future governors of this state fought a duel on a sandbar to the east of one of its cities known as Bloody Island. The Battle of Crooked River and the Haun’s Mill Massacre took place during a war in this state that prompted Governor (*) Lilburn Boggs to issue the “Extermination Order,” which led to an exodus of its resident Mormons. A Senator from this state wrote the autobiography *Thirty Years’ View* and was called “Old Bullion” for his outspoken advocacy of hard currency. The latitude line at 36-30, running along the south of this state, regulated slavery in the Louisiana Territory. For 10 points, name this home state of Thomas Hart Benton that names an 1820 Compromise.**

ANSWER: Missouri

BONUSES

1. The Tokoloshe is a hairy dwarf-like poltergeist in the myths of these people that can be warded off by putting bricks under one's bed. For 10 points each:

[10] Name these people whose creator god Unkulunkulu sent a chameleon to tell people they won't die and a lizard to tell people they will die. The lizard arrived before the chameleon, which is why humans are mortal.

ANSWER: **Zulu** mythology [prompt on "Bantu mythology"]

[10] Mbaba Mwane Waresa is the Zulu goddess of beer and these phenomena. The myths of Aboriginal Australians prominently feature a "serpent" named for these phenomena.

ANSWER: **rainbows**

[10] The rainbow-colored serpent Ayidda-Weddo appears in the myths of this other African ethnic group, whose androgynous creator deity Nana Buluku gave birth to the twins Mawu and Lisa.

ANSWER: **Fon**
2. While serving in this position, Marcus Furius Camillus placed his sword on a scale being used to measure a tribute, saying, "With iron and not with gold, Rome buys her freedom." For 10 points each:

[10] Name this position of essentially absolute power to which Camillus was appointed five times. In 44 BC, Julius Caesar was made the holder of this position for life.

ANSWER: **dictator**

[10] Before fighting off Brennus and the Gauls, Camillus had led the conquest of this wealthy Etruscan city that was Rome's nearest rival in the early days of the Republic.

ANSWER: **Veii**

[10] According to Livy, Camillus famously defeated Veii using this tactic, allowing some of his soldiers to enter the temple of Juno. The same tactic had been used 40 years earlier at Fidenae.

ANSWER: **tunneling** [accept any answers describing digging or excavating one's way into a citadel]
3. On February 17, 2016, a hot mic caught an off-air exchange where one presidential candidate told this man "you had me almost as a legendary figure." For 10 points each:

[10] Name this former Florida congressman who hosts a weekday morning talk show with Willie Geist and Mika Brzezinski. He has recently been criticized for his positive treatment of Donald Trump.

ANSWER: Joe **Scarborough**

[10] *Morning Joe* is a show on this traditionally left-leaning network whose slogan is "lean forward." On February 26, 2016, this network hired Rick Tyler, the spokesman fired by the Cruz campaign for circulating a misleading video of Marco Rubio.

ANSWER: **MSNBC**

[10] On the same day, this political science professor and host of a namesake daytime MSNBC show announced a walk-off of her program after a month of pre-emptions, writing that she had been "effectively and utterly silenced."

ANSWER: Melissa **Harris-Perry**
4. Claudio Monteverdi included several of these works in his final book of madrigals. For 10 points each:

[10] Name this type of light, secular vocal composition. Its name is Italian for "little song."

ANSWER: **canzonetta** [accept **canzonet**]

[10] The second movement of this composer's violin concerto is a G-minor canzonetta that leads directly into an Allegro Vivacissimo finale. Eduard Hanslick derided that concerto by this composer that Leopold Auer refused to premiere.

ANSWER: Pyotr Ilyich **Tchaikovsky**

[10] Another G-minor Canzonetta appears in this composer's First String Quartet. His Second Quartet uses a three-note motif that quotes from his earlier song "Is it true?"

ANSWER: Jakob Ludwig Felix **Mendelssohn** Bartholdy

5. In one work, this figure asks one character to “refrain from naming me” before bolting “away towards the windy sky.” For 10 points each:
 [10] Name this figure. In another work, the poet imagines her “skimming down the paths of the sky’s bright ether” as she descends to Earth on an “iridescent throne” pulled by “wing-whirring sparrows.”
 ANSWER: **Aphrodite**
 [10] The second of those poems is the only completely intact work by this ancient poet of Lesbos. Her poems were translated by Anne Carson in the collection *If Not, Winter*.
 ANSWER: **Sappho**
 [10] This contemporary poet wrote “the gods are on the park bench, the gods are on the bus” in her Ted Hughes Prize winning book *Brand New Ancients*. She told the story of the troubled young adults Becky, Harry, and Pete in her rap album *Everybody Down*.
 ANSWER: Kate **Tempest**
6. This dynasty won a battle against the Tugluq dynasty by tying flaming straw to the backs of camels in order to scare the opposing army’s war elephants. For 10 points each:
 [10] Name this dynasty ruled by men like Shahrukh Mirza, who lost most of its western possessions to the Black Sheep Turkomans, and Ulugh Beg, who built a giant astronomical observatory in Samarkand.
 ANSWER: **Timurid** dynasty
 [10] The Timurid dynasty succeeded this Mongol khanate as rulers of Transoxania. This khanate had its capital at Almaliq and was named for the second-oldest son of Genghis Khan.
 ANSWER: **Chagatai** Khanate
 [10] The bloodlines of Timur and Chagatai converged in the rulers of this empire. It expanded to control much of the Indian subcontinent under rulers like Jahangir and Aurangzeb.
 ANSWER: **Mughal** Empire [or **Mogul** Empire]
7. This work revitalized interest in Kierkegaard’s *The Book on Adler*, and it contains an essay analyzing *King Lear* and an essay analyzing *Endgame*. For 10 points each:
 [10] Name this collection that includes an essay that seeks to determine how we can expose fraudulence in art, titled “Music Discomposed.”
 ANSWER: **Must We Mean What We Say?**
 [10] *Must We Mean What We Say?* is an essay collection by Stanley Cavell, who wrote about this other philosopher in *The Claim of Reason*. This philosopher wrote *Philosophical Investigations*.
 ANSWER: Ludwig **Wittgenstein**
 [10] In *Philosophy the Day After Tomorrow*, Cavell defined a “passionate” version of this J.L. Austin concept, which is a sentence capable of actually doing an action or changing the world.
 ANSWER: **performative utterance**
8. The Hasegawa-Mima equation describes turbulence in these devices. For 10 points each:
 [10] Name these devices that generate both toroidal and poloidal magnetic fields in order to confine plasma.
 ANSWER: **tokamaks**
 [10] Tokamaks are the front-runner in the search for a technology that can generate sustainable energy via this process, which occurs naturally in the cores of stars.
 ANSWER: nuclear **fusion**
 [10] This singly-eponymous criterion is typically defined as the minimum value of the product of particle density, confinement time, and plasma temperature for which a fusion reactor will reach ignition and become self-sustaining.
 ANSWER: **Lawson** criterion

9. This king's commander, Alexander of Dundonald, led his forces at the Battle of Largs during a war fought over the Hebrides that was concluded at the Treaty of Perth. For 10 points each:
 [10] Name this Scottish king whose death in a riding accident in 1286 led to a struggle for succession known as the Great Cause, during which his granddaughter Margaret, Maid of Norway and John Balliol competed for the throne.
 ANSWER: **Alexander III** of Scotland [accept **Alexander the Glorious**]
 [10] Another claimant in the Great Cause was the Lord of Annandale, a member of this family. His grandson Robert was king of Scotland at the Battle of Bannockburn.
 ANSWER: **Bruce** [accept Robert the **Bruce**, Robert de **Brus**, or Robert de **Bruys**]
 [10] Alexander's grandfather, William the Lion, signed the Treaty of Falaise after he was captured at this conflict's Battle of Alnwick by a supporter of Henry II of England. Description acceptable.
 ANSWER: **Revolt** of **1173-74** [accept anything mentioning a **revolt** against **Henry II** by his **sons**, including Henry the Young King, Richard the Lionheart, and Geoffrey II of Brittany]
10. Answer the following about colonial American literature, for 10 points each:
 [10] This man wrote about his apprenticeship with his brother James and service as a diplomat in Paris in his *Autobiography*. He also wrote *Poor Richard's Almanack*.
 ANSWER: Benjamin **Franklin**
 [10] The second-most famous Alexander Hamilton was a Scottish doctor living in colonial Maryland who penned an influential work in this genre called his *Itinerarium*. Mark Twain's *The Innocents Abroad* is another example of this genre.
 ANSWER: **travel** literature [or **travelogues**; do not accept or prompt on "guide books"]
 [10] This woman described her time as a prisoner of the Narragansett during King Philip's War in a foundational work of American captivity literature. Her account of her travails is often considered "the first American bestseller."
 ANSWER: Mary **Rowlandson** [or Mary **Talcott**]
11. The activation of Hct1-APC and Sic1 suppresses Cdk activity in the early part of this phase. For 10 points each:
 [10] Name this phase of the cell cycle. Late in this phase, Rb is phosphorylated and inactivated, allowing E2F protein to enter a feedback loop that promotes transition into a new phase.
 ANSWER: **G1** phase [or **gap 1** phase]
 [10] The G1 phase usually occurs after M phase, which is named for this process in which the cell's chromosomes split between two future nuclei. This process includes prophase, metaphase, anaphase, and telophase.
 ANSWER: **mitosis**
 [10] In cells with DNA damage, this regulatory protein binds less strongly to Mdm2 and is more resistant to degradation, allowing it to block the G1/S transition. Patients with Li-Fraumeni syndrome have a mutant copy of the gene for this protein.
 ANSWER: **p53**
12. William Allen White, a newspaper editor from this state nicknamed "the Sage of Emporia," encouraged the growth of its Progressive Party. For 10 points each:
 [10] Name this state whose conservatism is analyzed in a Thomas Frank book titled for one of White's editorials, *What's the Matter with* [this state]?
 ANSWER: **Kansas**
 [10] In the late-19th century, Kansas' farmers overwhelmingly supported this political party, which promised to nationalize railroads in its Omaha Platform. This party joined with the Democratic Party to nominate William Jennings Bryan in the 1892 presidential election.
 ANSWER: **Populist** Party [or **People's** Party; or **Populists**]
 [10] While campaigning in Kansas, Populist Party activist Mary Elizabeth Lease coined a popular slogan telling farmers to "raise less [of one thing] and more [of another thing]." Name both.
 ANSWER: "raise less **corn** and more **hell**"

13. In one scene in this play, some sailors sing “Christ Kyrie” after Jesus walks past them on the water. For 10 points each:
- [10] Name this play in which Agnes, the daughter of the God Indra, descends to earth in order to learn about humanity. After marrying a lawyer and spending time in Fingal’s Cave, Agnes ascends back into heaven.
ANSWER: A **Dream Play** [or *Ett dromspel*]
- [10] A *Dream Play* was written by this Swedish playwright. The title character commits suicide with a razor given to her by her valet Jean in his play *Miss Julie*.
ANSWER: August **Strindberg** [or Johan August **Strindberg**]
- [10] In this play by another author, the title character ascends to heaven after trading her soul to the devil to redeem her starving peasants, who had also sold their souls. This play is dedicated to a woman who is also the subject of the author’s poem “When You Are Old.”
ANSWER: *The **Countess Cathleen***
14. Some of the most popular of these software packages include Backbone, Meteor, Ember, Play, and Angular. For 10 points each:
- [10] Name these reusable software components that form the base for most contemporary web applications. They differ from libraries in that they provide default behavior and exhibit inversion of control.
ANSWER: web **frameworks** [accept, but do not read, JavaScript frameworks]
- [10] The profusion of web frameworks is usually chalked up to the singular combination of questionable design and extreme extensibility in this language which runs inside web browsers. It was created by Brendan Eich in less than two weeks.
ANSWER: **JavaScript**
- [10] Facebook is built using this JavaScript library and framework inspired by functional programming. Properties can only flow down this framework’s virtual DOM while actions flow up, and components for this framework are usually written using the JSX extension.
ANSWER: **React**
15. Answer the following about Charles Dickens characters with unpleasant professions, for 10 points each:
- [10] Characters in this Dickens novel include Jerry Cruncher, a “resurrection man” who sells stolen corpses. It begins with the sentence “It was the best of times, it was the worst of times.”
ANSWER: A **Tale of Two Cities**
- [10] This Dickens novel, the last novel he completed, begins with Gaffer Hexam robbing a corpse he finds in the Thames. It ends with John Rokesmith revealing that he is the supposedly deceased John Harmon and agreeing to marry Bella Wilfer.
ANSWER: **Our Mutual Friend**
- [10] Edward Murdstone sends the title character of *David Copperfield* to a factory in London where he performs the monotonous job of cleaning these objects.
ANSWER: wine **bottles**
16. The leitmotif accompanying this character resembles the opening phrase of “The Star-Spangled Banner.” For 10 points each:
- [10] Name this operatic character whose return from overseas is imagined in the aria “Un bel di.”
ANSWER: B.F. **Pinkerton**
- [10] Pinkerton impregnates and abandons Cio-Cio San in this Giacomo Puccini opera set in Japan.
ANSWER: **Madame Butterfly** [or *Madama Butterfly*]
- [10] The Second and Third Acts of *Madame Butterfly* are bridged by this chorus, which depicts Cio-Cio San waiting up all night for Pinkerton to visit her.
ANSWER: “the **Humming Chorus**” [or “**Coro a bocca chiusa**”]

17. This festival is said to commemorate the spilling of *amrita* in four different places after the Churning of the Ocean. For 10 points each:
[10] Name this pilgrimage festival that takes place once every twelve years in each of the four cities of Haridwar, Allahabad, Nashik, and Ujjain.
ANSWER: **Kumbha Mela**
[10] Another Hindu pilgrimage site is the Amarnath Temple in the Himalayas, which features a naturally occurring one of these objects made from ice. The feminine counterpart of this kind of object is called a *yonis*.
ANSWER: **lingam**
[10] The linga is a symbol of this Hindu destroyer god, who makes up the Trimurti along with Brahma and Vishnu.
ANSWER: **Shiva**
18. Answer the following relating to 1,2-shift reactions, for 10 points each:
[10] This 1,2-hydride shift occurs when a hydrogen atom on an aromatic ring migrates to an adjacent carbon. It often occurs during hydroxylation reactions and is named for the institute that first reported it.
ANSWER: **NIH** shift [or **National Institutes of Health** shift]
[10] The Wagner-Meerwein rearrangement is a 1,2-shift involving migration of a hydrogen, alkyl, or aryl group, which proceeds through this kind of intermediate. These molecules possess carbons with a positive charge.
ANSWER: **carbocation**
[10] A 1,2-alkyl shift can also occur to stabilize the carbocation intermediate formed in reactions that proceed through this non-concerted mechanism involving removal of two substituents from a molecule. In this mechanism, the leaving group is removed in the first step and a base removes a proton in the second step.
ANSWER: **E1** [prompt on **elimination**]
19. The teachings of John Climacus provided the inspiration for one of these works, which shows a procession of people ascending a ladder as the black silhouettes of winged demons pull the sinners off. For 10 points each:
[10] Name these sacred images that usually depict saints and other holy figures. Andrei Rublev is probably the most famous painter of these works, which were fiercely condemned by the church in the Byzantine Empire.
ANSWER: **icons**
[10] Many icons were painted using a technique in which pigments were added to this material, which was applied to a wooden panel. That technique, often called “encaustic,” was also used for many of the Fayum mummy portraits.
ANSWER: **beeswax**
[10] This icon by Andrei Rublev depicts three golden-winged angels sitting around a table, each holding a thin red staff. The Oak of Mamre, Mount Moriah, and a house are visible in the background of this Biblical scene.
ANSWER: **The Trinity** [or **The Hospitality of Abraham**]
20. One model of this activity was based off of Ricardo’s theory of comparative advantage and describes how a capital-abundant country and a labor-abundant country will lower bids accordingly. For 10 points each:
[10] Name this activity that may be modeled using the Heckscher-Ohlin model. The “new” theory of this activity models increasing returns to scale.
ANSWER: international **trade**
[10] This economist noted that the United States exported labor-intensive goods and imported capital-intensive goods even though it was capital-abundant. That challenge to the H-O model is known as his namesake paradox.
ANSWER: Wassily **Leontief**
[10] This other model of trade calculates trade flows between two countries with an equation that multiplies the masses or GDPs of two economies and divides that product by the distance, all multiplied by a constant G.
ANSWER: **gravity** model of international trade