

## Penn Bowl 2018

### Packet 5

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Tossups

1. **In an iconic picture of delegates on the steps of the Government House, this man is said to be sitting because he was too hungover to stand. In his position as a colonial leader, this man's government fell and re-assumed power within a period of seven days in the "Double Shuffle." This man's first government was brought down after Lucius Seth Huntington exposed bribes that Hugh Allan had paid to the Conservative Party. In the Great Coalition, this man joined George-Étienne Cartier and George Brown at the (\*)** Charlottetown Conference to push for confederation. This politician sent Garnet Wolseley to put down the Métis ("may-TEE") in a newly-purchased province and ordered the execution of Louis Riel for his role in the Red River Rebellion. For 10 points, name this Father of Confederation who resigned due to the Pacific Scandal and served as the first Prime Minister of Canada.

ANSWER: Sir John Alexander **Macdonald**

<NR, European History>

2. **A married aristocrat and his wife's niece discover that they have the same handwriting in one novel by this author, which was the subject of an essay by Walter Benjamin ("VALL-tuh BEN-yah-meen") and was inspired by an aphorism that says people either "mix like water and wine" or "separate like water and oil." A play by this author, which ends with the figure of Freedom visiting Klarchen's lover in jail, was set to music in Beethoven's (\*) *Egmont Overture*. In another work by this author of *Elective Affinities*, two characters, one of whom is friends with Count C and Fraulein von B, bond over their mutual love of Goldsmith and Klopstock, but one of them refuses to break her engagement to Albert. That novel's protagonist's infatuation with Lotte causes him to kill himself later in that work. For 10 points, name this German Romantic author of *The Sorrows of Young Werther*.**

ANSWER: Johann Wolfgang von **Goethe**

<MT, European Literature>

3. **The family of Victoria Soto, one of the victims of this event, applied to trademark her name to prevent its misuse on social media. Following this event, the HONR ("honor") Network was founded to combat abuse of victims and their relatives by people such as Wolfgang Halbig. The President hung a painting by Grace McDonald, one of the victims of this event, in his private study by the Oval Office. Asa Hutchinson was appointed director of a "shield program" following this event after a week of (\*) silence by Wayne LaPierre. Dan Malloy and Chris Murphy visited the open-casket funeral of Noah Pozner, a six-year-old who died during this event. For 10 points, name this event denied by conspiracy theorists like Alex Jones in which 20 first-graders were shot and killed at a school in Newtown, Connecticut.**

ANSWER: **Sandy Hook** Elementary School shooting [accept **Newtown** shooting until it is read]

<NR, American History>

4. **Alexandru Balaban described the difficulty of defining this property in a famous story about a madman and his dog. Both the anisotropy of magnetic susceptibility and the diamagnetic exaltation are experimental criteria for this property. The normalized sum of squared deviations of bond length is set equal to one for molecules with this property in the HOMA method. This property has negative NICS values. Ring (\*) currents**

in molecules with this property deshield nearby protons in NMR. Cyclooctatetraene (“cyclo-octa-tetra-eeen”) does not have this property as it adopts a tub conformation. Molecules with this property have  $4n+2$  pi electrons by Hückel’s rule, and molecules with it are cyclic and planar with delocalized p orbitals. For 10 points, name this property of molecules like benzene, originally named for those molecules’ distinct smell.

ANSWER: **aromaticity**

<PL, Chemistry>

5. **One proverb says that someone who believes all the stories about this religion’s founder is a fool, but anyone who disbelieves one is a heretic. The great-grandson of this religion’s founder developed a form of spontaneous prayer and meditation called “self-seclusion,” focused on purging negative traits. That founder used a parable about crying out to frighten away a thief to show his disdain for asceticism, from which he dissuaded this religion’s second leader. This religious movement refers to their enemies as (\*) *Mitnagdim* (“meet-nog-DEEM”), which include the Vilna Gaon (“gah-OWN”). Residents of Kiryas Joel (“KEER-yuss YOIL”) are of this sect, and they are differentiated by their following of a dynastic Rebbe (“REB-ee”) leader. The largest subset of this religious movement is Chabad-Lubavitch (“huh-BOD luh-BUV-itch”), found in Crown Heights. For 10 points, name this division of Orthodox Judaism founded by the Baal Shem Tov, famous for wearing their hair in *payos* (“PAY-iss”) curls.**

ANSWER: **Hasidism** [or **Chasidism**; or **Hasidim**; or **Hasids**; or **Hasidic Jews**; or **Hasidic Judaism**; prompt on **Jews** or **Judaism** or **Orthodox Judaism**]

<SC, Religion>

6. **The TinkerPop language Gremlin can be used to work with graphs in these systems on Neptune, while Aurora provides access to other examples of them. These systems are contrasted with larger, less-structured ones known as “lakes” and “warehouses.” Rules about these systems include the nonsubversion rule, stating that a low-level language can’t bypass a high-level language, and the guaranteed access rule. Those rules are from (\*) Codd’s 12 rules of these systems. Atomicity, consistency, isolation, and durability are the ACID properties of “all-or-nothing” transactions in these systems. Non-relational examples of these systems are named “Dynamo” and “Mongo.” Commands like GROUP BY, JOIN, SELECT, or INSERT can be used to manipulate these systems, whose tables are often queried using SQL. For 10 points, name these constructs that store information.**

ANSWER: **database** [or **DBs**; accept relational or non-relational **databases**; anti-prompt (i.e., ask “can you be less specific?”) on **tables** until read; do not accept or prompt on “data structures”]

<JC, Other Science (Computer Science)>

7. **A nationalist political party in this country articulates “integral humanism” and attacks the “pseudo-secularism” of its rival party. This country tabled a report by the one-man Liberhan Commission, which led a 17-year inquiry into an event that inspired a series of bombings by Dawood Ibrahim’s D-Company. L. K. Advani organized a march in this country to promote worship at a site that was destroyed two years later by kar sevaks. In this country, five members of (\*) Lashkar-e-Taiba died attempting to massacre pilgrims at the site of the demolished Babri Mosque. This country’s Bharatiya Janata (“BAH-rah-THEE-yah JUN-uh-thuh”) Party gained popularity as the voice of the Ram Janmabhoomi (“RAHM JUN-muh-BOO-mee”) movement. For 10 points, name this country where Hindutva (“hin-DOOT-vuh”) has been promoted by the former chief minister of Gujarat (“GOO-juh-ROT”), Narendra Modi.**

ANSWER: **India**

<AJ, World History>

8. **This author wrote a compendium of letters to be used “on the most important occasions,” including “to a young man too soon keeping a horse.” This author wrote a sequel about one of his works’ protagonists “in her exalted condition.” That woman was lampooned in a work about the deceitful “Syrena Trickisy” by Eliza**

**Haywood, while Henry (\*)** Fielding created Squire Booby in another parody of that work. One of this author's villains imprisons the protagonist in a brothel whose inhabitants are disguised as high-class women, while another gets into bed with the protagonist disguised as a housemaid; that man is Mr. B. This author's Colonel Morden duels and kills Robert Lovelace, who drugs and rapes the title heroine of this man's most famous epistolary novel. For 10 points, name this author of *Clarissa* and *Pamela*.

ANSWER: Samuel Richardson

<JC, British Literature>

**9. One of the characters from this video game series sleeps with a deity for 88 days straight, resulting in many spirits returning from the dead to feast upon the "pomegranate banquet." Four signs including "Fire from the Eye of Glass" and "Tide of Woe" predate a hunting event from this game series, which occurs only once every era. A realm from this game series undergoes an event called Greymarch at the end of every era due to the emergence of Forces of Order. The hero of (\*)** Kvatch undergoes apotheosis at the end of a game from this series during his adventures in the Shivering Isles. In another game from this series, a dragon named Paarthurnax helps the main character meditate on his shouts. For 10 points, name this video game series featuring Daedric lords such as Hircine and Azura, whose most recent entries include *Oblivion* and *Skyrim*.

ANSWER: The Elder Scrolls Series [or Morrowind; accept Oblivion or Skyrim until read]

<PL, Trash (Video Games)>

**10. This poem asks "Have you practiced so long to learn to read?" and promises the addressee "you shall no longer take things at second or third hand" because "you shall possess the origin of all poems." One group in this work does not "think whom they souse with spray," and this poem ends by claiming "You will hardly know who I am or what I mean, / But I shall... filter and fibre your blood." The protagonist gives the answers "a uniform hieroglyphic," "the handkerchief of the Lord," or "the beautiful uncut hair of (\*) graves" after a child asks "What is the grass?" This poem's narrator claims "I loaf and invite my soul" and "Very well then, I contradict myself," as he "sounds" a "barbaric yawp over the roofs of the world." For 10 points, name this Walt Whitman poem in *Leaves of Grass* which begins "I celebrate myself, and sing myself."**

ANSWER: "Song of Myself" [prompt on *Leaves of Grass*]

<JC, American Literature>

**11. In a painting partly titled for a Landscape of his homeland, this artist painted the flag of his homeland and two neighboring countries and wrote "Sard" in cursive, referring to a folk dance. This artist created a brightly-colored tapestry that was destroyed on 9/11 in collaboration with Josep Royo ("zhoo-ZEP ROY-oh"). This artist depicted his family's home in Mont-roig ("moon-ROHJ") in one work, and he was inspired by (\*) Jan Steen ("yahn STAIN") and Martensz Sorgh to depict an egg-like mass playing a guitar in his *Dutch Interiors* series. This artist of *The Farm*, who once said that he wanted to "assassinate painting," made a sculpture that has been renamed for the Midwestern city it is displayed in. That sculpture resembles a woman with a fork on her head and was originally named *The Sun, the Moon, and One Star*. For 10 points, name this Catalan artist who painted a chaotic scene filled with abstract animals in his painting *The Tilled Field*.**

ANSWER: Joan Miró i Ferrà

<MT, Painting>

**12. Princess Epyaxa reviewed a group of people with this profession and helped keep it from dissolving. In one conflict named after this profession, a siege in a box-shaped canyon known as "the Saw" led to the capture of Spendius and Autaritus. A group descended from people with this profession called on the Carthaginians, and then the Romans, for protection, touching off the First Punic War; those people were the (\*) Mamertines. A large group of people with this profession tried to ally with Ariaeus and Tissaphernes before shouting "The sea! The sea!" In *The Anabasis*, Xenophon records the march of ten thousand people with this**

profession back to Greece after they served Cyrus the Younger. In a war named for these people, they rebelled against Carthage, who had failed to pay them for their services in the First Punic War. For 10 points, give this term for hired soldiers.

ANSWER: **mercenaries** [prompt on The Ten Thousand or the Mamertines or any specific groups the Carthaginians used as mercenaries by asking “what was their job?”; prompt on soldiers or specific types of soldiers]

<JC, European History>

13. In one work about these things, *The Treachery of Images* is shown 10 times in a row, and a story is told about Carl, who drinks and drives. That work was inspired by another one of these things that often cites *The Spirit*. That first work about these things highlights the Japanese use of “aspect-to-aspect transitions” and shows an implied murder to discuss “closure” in the section “Blood in the Gutter.” That book about these things creates a triangle diagram between “reality,” “language,” and “the picture plane.” Fredric (\*) Wertham argued that these works promoted homosexuality and violence in his book *Seduction of the Innocent*. Scott McCloud wrote a notable work in this medium about *Understanding [them]*. Artists in this “cool” medium include Art Spiegelman and Will Eisner. For 10 points, name these publications of “visual sequential art” that include *Batman* and *Superman*.

ANSWER: **comic** books [or **comics**; or **graphic novels**]

<JC, Social Science (Sociology)>

14. The narrator of this short story observes that there are “countless men” but “all that really happens happens to me.” That narrator of this story hears two versions of a story about heroes “with tranquil heart and bloody sword” who “were resigned to killing and dying” and speaks of his “infinite penitence and sickness of the heart” after saying “But I am your friend” to a man he betrays. That main character of this work travels to Ashgrove to see a (\*) book where the hero dies in the third chapter but is alive in the fourth, which was written by his ancestor and does not contain the word “time.” The narrator of this story shoots the Sinologist Stephen Albert to convey the name of a city to be bombed after he realized Ts’ui Pen created the title labyrinth of an “infinite series of times.” For 10 points, name this short story about Yu Tsun written by Jorge Luis Borges.

ANSWER: “The **Garden of Forking Paths**” [or “**El jardín de senderos que se bifurcan**”]

<SC, World Literature>

15. This man once advertised for subjects in the newspaper with the line “you cannot tell how soon it may be too late.” *The New York Times* wrote that this man has “laid” his subjects “in our dooryards and along the streets” in works created in “what-is-it wagons.” This student of William Page took a picture of an actor in the same setting dressed as Spartacus, Richard III, and himself; that actor was Edwin Forrest. This man had Francis d’Avignon create a book of lithographs based on his work, including portraits of William Channing and (\*) Millard Fillmore. This creator of the *Gallery of Illustrious Americans* employed Timothy O’Sullivan and Alexander Gardner to create works like one showing a mass of bodies lying next to a fence. For 10 points, name this Civil War photographer of “The Dead at Antietam.”

ANSWER: Mathew **Brady**

<JC, Other Arts (Photography)>

16. Kevin Armitage argues that this philosophical text presaged ecofeminist works like Carolyn Merchant’s *The Death of Nature* through its gendered analysis of mankind’s mastery of the natural world. This text asserts that race “is the self-assertion of the bourgeois individual” in a section on the “Elements of Anti-Semitism.” Its first “Excursus” examines the story of the sirens and Odysseus to analyze the relationship of myth to the title concept, while its second “Excursus” examines the Marquis de Sade’s (“mar-KEE duh SOD’s”) *Juliette*. This book argues that (\*) mass media manipulated society into passivity and likens films to the goods of a factory in a chapter titled “The Culture Industry.” For 10 points, name this Frankfurt School text that

examines the role of the title historical movement in the emergence of fascism, written by Max Horkheimer and Theodor Adorno.

ANSWER: Dialectic of Enlightenment [or Dialektik der Aufklärung]

<NR, Philosophy>

17. **Genes coding for this protein are immediately upstream of cbbX, cbbY, and cbbZ in *Rhodobacter*. BSD2, raf1 (“raf-one”), raf2, and rbcX are chaperones for its assembly. The selectivity of this protein necessitates maintaining a high electrostatic gradient, which helps explain its low turnover. This protein, which consists of eight large chains and eight small chains, binds to CA1P (“C-A-one-P”), whose release is required to make it catalytically active. This protein’s (\*) activase helps a magnesium ion at its active site after a lysine residue is carbamylated. This protein produces phosphoglycolate as a side product, which is why it is localized to bundle sheath cells in some organisms. This protein’s efficiency limits the rate of the Calvin cycle during the day. For 10 points, name this protein, an enzyme that catalyzes the carboxylation of RuBP, the most abundant enzyme on Earth.**

ANSWER: RuBisCo [or Ribulose-1,5-bisphosphate carboxylase/oxygenase]

<AP, Biology>

18. **The inventor of this type of piece called another composer a “sickroom talent” after hearing pieces of this type by that composer. The *Bells of Geneva* movement from Liszt’s *Years of Pilgrimage* is one of these pieces. A solo French horn plays the fanfare-like rising notes [read slowly] “B, short B, long E; B E F-sharp, F-sharp, G-sharp” to open a movement of this type in Mendelssohn’s *Incidental Music to Midsummer Night’s Dream*. A piano piece of this type dedicated to Madame Camille Pleyel opens with slow, wide E-flat major broken chords while the right hand leaps up from B-flat to G. The *andante* third movement of Borodin’s (\*) String Quartet No. 2 is this kind of piece. Chopin’s Opus 9, No. 2 is one of his 21 pieces in this genre invented by John Field. For 10 points, name these short musical pieces meant to evoke the night.**

ANSWER: nocturnes

<PL, Music>

19. **In one epic from this country, a man has to fight a one-eyed giant in order to get berries for his pregnant wife’s cravings. In that epic, a hero from this country tries to avoid healing a man who ran off with his fiancée by continually letting water slip through his fingers. Another hero from this country fought against and had a son with Aífe (“EEF-yuh”), the twin sister of his female mentor (\*) Scáthach (“SKA-hakh”), and fought a goddess who turned into an eel, wolf, and cow while going into a battle frenzy. One man from this country, the husband of Emer, accidentally kills a dog and promises to become a “hound” in replacement. One hero from this country defeated Queen Maeve at the Cattle Raid of Cooley with his spear Gae Bulg, while another burnt his thumb on the Salmon of Knowledge. For 10 points, name this country home to the Ulster Cycle, whose heroes include Cuchulainn and Finn MacCool.**

ANSWER: Ireland [or Éire; or Airlann]

<JC, Mythology>

20. **In the path integral formulation, the Berezin integral is used to sum over the history of these particles. When applying second quantization to quantum fields of this type, collections of these particles correspond to Grassmann numbers. Susskind and Kogut proposed a type of these particles to solve their namesake “doubling problem” in lattice gauge theories. Regal, Greiner, and Jin used Feshbach resonances on a cloud of potassium-40 atoms to create the first (\*) condensate of these particles. The probability density of these particles existing at a particular energy equals 1 over an exponential term plus one. These particles have antisymmetric wavefunctions under exchange, and therefore cannot have the same quantum numbers according to the Pauli exclusion principle. For 10 points, name these particles that have half-integer spin and are named for an Italian physicist.**

ANSWER: **fermions** [prompt on “electrons”]  
<EM, Physics>

## Bonuses

1. In this play, a character says that she would rather stand “three times to face their battles, shield in hand, than bear one child!” For 10 points each:

[10] Name this only Ancient Greek play in which a character guilty of killing a family member goes unpunished.

ANSWER: Medea

[10] The title character of this other play also murders a family member, and tells his uncle “We are slaves to the gods. Whatever gods are” while explaining the madness he suffered as a result of the murder.

ANSWER: Orestes

[10] This Ancient Greek author of *Medea* and *Orestes* supposedly went to live in a cave after two disastrous marriages.

ANSWER: Euripides

<MT, European Literature>

2. This effect is used as the basis for a thermocouple. For 10 points each:

[10] Name this effect that was discovered by observing that a compass needle was deflected by a closed loop formed by two different metals joined together with a temperature difference across them.

ANSWER: Seebeck effect [prompt on thermoelectric effect]

[10] The Seebeck effect and thermoelectric phenomena can be described by these relations, sometimes called the fourth law of thermodynamics. They state that  $L_{-i-j}$  equals  $L_{-j-i}$ , where  $L$  is a phenomenological coefficient.

ANSWER: Onsager reciprocal relations [prompt on partial answer]

[10] Some types of these devices take advantage of the Seebeck effect to measure temperature. The most common type of these devices is their “bomb” variety, and intro labs sometimes make one from coffee cups.

ANSWER: calorimeters

<AP, Chemistry>

3. This kingdom alternated between kings named Frederick and Christian from 1513 to 1972. For 10 points each:

[10] Name this Scandinavian country once led by Margaret I, who orchestrated the Kalmar Union. Though she ruled from Roskilde (“ROSS-keel-ih”), the country’s capital was later moved to Copenhagen.

ANSWER: Denmark

[10] Born with the name Boguslaw, this adoptive son of Margaret I adopted a more Nordic-sounding regnal name when she put him on the throne of the Kalmar Union. He later introduced the Sound Dues.

ANSWER: Eric of Pomerania [or Erik af Pommern, Eric VII, Eric III, or Eric XIII; prompt on Eric]

[10] The Kalmar Union was dissolved by the Treaty of Malmö in 1520 when this noble declared independence in response to the Stockholm Bloodbath and founded a Swedish royal dynasty.

ANSWER: Gustavus Vasa [or Gustav I or Gustav Eriksson; prompt on partial answer; do not accept “Gustavus Adolphus”]

<NR, European History>

4. A poem by this author begins “with drum accompaniment” and describes, in all caps, “the robbers,” “the eagles,” and “the politicians” “descending upon us.” For 10 points each:

[10] Name this Nigerian poet of “Elegy for Alto” who described himself as “Watchman to the watchword” and concludes “we are listening in cornfields among the windplayers” in his collection *Heavensgate*.

ANSWER: Christopher Okigbo

[10] Okigbo wrote “Lament of the Masks” to commemorate the 100th birthday of this author of “Sailing to Byzantium” and “The Second Coming.”

ANSWER: William Butler Yeats

[10] The narrator of Okigbo's poem "The Passage" declares "Before you...naked I stand" to one of these things, which he calls "mother." Another poem about these things concludes with the line "my soul has grown deep."

ANSWER: rivers [accept river goddesses]

<JC, World Literature>

5. Lev Landau worked in many fields of physics. For 10 points each:

[10] Landau developed the theory of this property of fluids, which means that they have zero viscosity. It was first actually observed in liquid helium-3 by Pyotr Kapitza and John Allen.

ANSWER: superfluidity

[10] This type of potential in statistical mechanics is often referred to as the "Landau free energy." It is equal to internal energy, minus temperature times entropy, minus chemical potential times number of particles in the system.

ANSWER: grand potential [do not accept or prompt on other answers]

[10] Together with this scientist, Landau names a macroscopic theory of superconductivity often contrasted with microscopic BCS theory. It defines superconductor free energy as a function of an order parameter.

ANSWER: Vitaly Lazarevich Ginzburg

<JC, Physics>

6. The second half of the modern version of this piece is oddly transcribed to C minor, which is now believed to be a copyist's error. For 10 points each:

[10] Name this setting of Psalm 51 that was typically performed during Tenebrae service. This piece was banned from reproduction until a young Mozart supposedly transcribed the piece from memory after hearing it in a mass.

ANSWER: Allegri's Miserere [or Miserere mei, Deus]

[10] One of the most famous recordings of the *Miserere* is by a British ensemble founded by Peter Phillips named for this Renaissance British composer of *Spem in Alium*.

ANSWER: Thomas Tallis

[10] In their debut recording, the Tallis Scholars performed this ordinary mass alongside Allegri's *Miserere*. The Vatican supposedly decided that polyphony was worth saving in the Council of Trent after hearing this mass.

ANSWER: Pope Marcellus Mass [or Missa Papae Marcelli]

<PL, Music>

7. This author wrote *A Crown of Sonnets*, a collection in which the last line of each sonnet is the first line of the next. For 10 points each:

[10] Name this author of *The Countess of Montgomery's Urania*, who wrote sonnets from one of its protagonists to the unfaithful other one in *Pamphilia to Amphilanthus*.

ANSWER: Mary Wroth

[10] This uncle of Mary Wroth wrote about a Muse who tells him "Fool... look in thy heart, and write" in *Astrophel and Stella*. He described a woman as chaste as Venus and mild as Juno in "What Length of Verse?"

ANSWER: Philip Sidney

[10] This author apostrophized "Thou art not built to envious show" to the Sidney family's country house in "To Penshurst." He wrote *Volpone* and *Bartholomew Fair*.

ANSWER: Ben Jonson

<JC, British Literature>

8. In one story, this deity turned Changing Bear evil. For 10 points each:

[10] Name this trickster deity who creates humanity by kicking a ball of mud and loses his position as moon god by spying on people.

ANSWER: Coyote

[10] Coyote gained a notable physical feature when he attempted to use sticks to achieve this task, which would allow him to receive the name he wanted on name-giving day.

ANSWER: **stay up all night** [accept equivalents that involve staying **awake** through the **night** or **not sleeping**; prompt on things like being **early**]

[10] Coyote created the star Arcturus by juggling these things in order to impress girls. In Egyptian mythology, one of these things belonging to Horus was removed by Set and personified by Wedjat.

ANSWER: his own **eyeballs**

<JC, Mythology>

9. Given a basket of unknown symbols and a manual for inputs and outputs, a person in a room could theoretically carry on a conversation without understanding any of it. For 10 points each:

[10] Name this thought experiment used to claim that programs and minds are fundamentally different.

ANSWER: **Chinese room** experiment

[10] Searle's Chinese room experiment refutes this theory of how the mind works. This theory holds that the brain is a formal symbol manipulator and that cognition results from manipulations of mental symbols.

ANSWER: **computational theory of mind** [or **computationalism**; or **CTM**; prompt on **representational theory of mind** or **RTM**]

[10] Searle is one of many academics recently accused of sexual misconduct. After Avital Ronell, a professor from this university, was accused of sexual harassment, several prominent philosophers came under fire for a letter supporting her. Other philosophers at this East Coast university include Ned Block and Kwame Anthony Appiah.

ANSWER: **NYU** [or **New York University**]

<MT, Philosophy>

10. This president helped put down a strike by the Boston Police while he was governor of Massachusetts and allegedly won a bet with the two-word rejoinder "you lose." For 10 points each:

[10] Name this "silent" president who took office after the death of Warren G. Harding.

ANSWER: Calvin **Coolidge**

[10] Coolidge signed into law this act that granted citizenship to Native Americans. This act was named for the New York representative who sponsored it.

ANSWER: **Snyder** Act [or **Indian Citizenship Act of 1924**]

[10] One of the most powerful voices in Coolidge's cabinet was this man, his Secretary of the Treasury. This philanthropist founded the National Portrait Gallery and funded the University of Pittsburgh.

ANSWER: Andrew **Mellon**

<AP, American History>

11. A character in this opera claims to value love over beer, but later betrays his lover by accepting 300 florins. For 10 points each:

[10] Name this comic opera in which a character sings the "Stuttering Song" and Esmeralda dances with a bear. Its overture opens with a rising third from A to C and unison strings scurrying in F major pentatonic.

ANSWER: *The **Bartered Bride*** [or ***Prodaná nevěsta***]

[10] This composer of *The Bartered Bride* wrote a string quartet that uses a sustained high E by the violin to represent his deafness. He wrote a set of six symphonic poems called *Má vlast*.

ANSWER: Bedřich **Smetana**

[10] This is the third of the three dances in *The Bartered Bride*. It accompanies the arrival of a circus troupe in the village, and during it, Vašek dons a bear costume.

ANSWER: "**Dance of the Comedians**"

<MT, Other Arts (Opera)>

12. This construct is often divided into the five traits of openness, conscientiousness, neuroticism, agreeableness, and extraversion. For 10 points each:

[10] Many psychometric tests, including the Myers–Briggs, attempt to measure this concept.

ANSWER: **personality**

[10] This psychologist identified the aforementioned “Big Five” personality traits and created the commonly-used Sixteen Personality Factor Questionnaire.

ANSWER: Raymond **Cattell**

[10] This personality test contains 32 picture cards with evocative but ambiguous images. In this test, the subject is asked to make up a story about the figures in the picture.

ANSWER: **Thematic Apperception** Test [or **TAT**; or **picture interpretation technique**]

<JC, Social Science (Psychology)>

13. Lin Zexu (“dzuh-shoo”) referred to this substance as “foreign mud” and wrote an open letter to Queen Victoria condemning its trade. For 10 points each:

[10] Name this poppy-based drug whose import caused two wars between Britain and China.

ANSWER: **opium**

[10] After diplomatic envoy Harry Parkes and his delegation were arrested and tortured, Lord Elgin ordered troops to burn down this complex.

ANSWER: the **Old Summer Palace** [or **Imperial Gardens**; or **Yuanming Yuan**; prompt on **Summer Palace**]

[10] Following the Second Opium War, this anti-foreign mother of the Tongzhi (“TUNG-jurr”) Emperor became regent. She later blocked the Hundred Days’ Reform and voiced support for the Self-Strengthening Movement.

ANSWER: Empress Dowager **Cixi** (“tsuh-SHEE”)

<NR, World History>

14. The Plummer model describes a method for distance determination using these objects. For 10 points each:

[10] Name these dense, roughly spherical collections of hundreds of thousands of stars that all have approximately the same age.

ANSWER: **globular clusters** [prompt on **clusters**; do not accept “open clusters”]

[10] This globular cluster, the biggest and brightest in the Milky Way, is visible to the naked eye. Some astronomers think that this object is not a globular cluster at all, but rather a dwarf galaxy stripped of its outer stars.

ANSWER: **Omega Centauri** [or **ω Cen**; or **NGC 5139**]

[10] The stars in Omega Centauri have a wide range of metallicity, which is defined as the percentage of a star not consisting of these two elements. Name both.

ANSWER: **hydrogen** AND **helium** [accept in either order]

<AP, Other Science (Astronomy)>

15. Two contrasting types of this action are *bi-al-riwaya*, or using classic sources for analysis, and *bi-al-diraya*, or using independent reasoning for analysis. For 10 points each:

[10] Name this process that is performed by *mufassir*, such as Ibn Kathir, to write works called *tafsir*.

ANSWER: **commentating** the **Qur’an** [accept **analyzing** or **interpreting** or **exegesis** or **explaining** or equivalents in place of “commentating”; accept **tafsir** until read; prompt on **Islamic commentaries**]

[10] This Persian author of *History of the Prophets and Kings* wrote an extremely comprehensive *tafsir*, the earliest surviving Qur’anic commentary. It includes linguistic analysis of words used in the Qur’an as well as *qira’at*.

ANSWER: Abu Ja’far Muhammad ibn Jarir **al-Tabari**

[10] Ibn Kathir’s commentary on the Qur’an attempted to link verses of the Qur’an to these collected sayings of Muhammad.

ANSWER: **hadith**

<JC, Religion>

16. Animal cruelty is bad. Answer some questions that would horrify Peter Singer, for 10 points each.

[10] These animals carried howdahs and turrets into combat. Hannibal's personal one of these animals was named "Surus" and probably originated from Syria.

ANSWER: **elephants**

[10] At the Battle of Thymbra, Cyrus the Great re-deployed these animals from his baggage train to intimidate the larger Lydian horse cavalry. A US Army experiment to form a corps of these animals was abandoned during the Civil War.

ANSWER: **camels** [or the United States **Camel** Corps]

[10] The Megarians used the flaming variety of these animals as a countermeasure to Antigonos II Gonatas's war elephants, who bolted in terror.

ANSWER: war **pigs**

<NR, European History>

17. This process is impaired in hemophilia. For 10 points each:

[10] Name this biological process in which platelets aggregate and a plug is formed to stop blood loss. Drugs like dabigatran, fondaparinux, heparin, and coumadin inhibit this process.

ANSWER: **coagulation** [or blood **clotting**; or **hemostasis**]

[10] In the final step of the clotting process, fibrinogen is cleaved to form this protein that is then cross-linked by factor 13.

ANSWER: **fibrin**

[10] In Christmas disease, the body fails to produce this other clotting factor, which activates factor 10. Like factors 2, 7, 10, C, and S, this factor requires vitamin K for its formation.

ANSWER: factor **IX** ("nine") [or factor **9**]

<AP, Biology>

18. One artist in this movement used the "soak stain" technique to depict Nova Scotia in pastel pinks, blues, and greens in *Mountains and Sea*. For 10 points each:

[10] Helen Frankenthaler was a member of this movement, which Harold Rosenberg described as producing "apocalyptic wallpaper" in his essay "The American Action Painters." It included de Kooning and Pollock.

ANSWER: **abstract expressionism**

[10] Frankenthaler is also identified with this later group, which was named by Clement Greenberg, who commented on its bright and depersonalized nature. This term includes the art of Kenneth Noland and Morris Louis.

ANSWER: **post-painterly abstraction**

[10] This abstract expressionist and creator of "zips" is often considered to presage post-painterly abstraction in works like *Broken Obelisk*, *Onement I*, and *Vir Heroicus Sublimis*.

ANSWER: Barrett **Newman**

<JC, Painting>

19. Laurel McKelva, the main character of this novel, confronts another character with a destroyed breadboard that belonged to her dead mother. For 10 points each:

[10] Name this novel that depicts the death of Clint McKelva, better known as the Judge, and the rivalry between his daughter and his second wife Fay, a work by Eudora Welty.

ANSWER: *The **Optimist's Daughter***

[10] Welty wrote "Where Is The Voice Coming From?", a short story about a white man who kills Roland Summers. The story was written in response to the 1963 killing of this real-life Civil Rights activist by Byron de La Beckwith.

ANSWER: Medgar **Evers**

[10] Welty, along with other authors like Flannery O'Connor, was a prominent author in this genre, a regional variant of an earlier European and American literary movement.

ANSWER: **Southern Gothic** [prompt on Gothic]

<MT, American Literature>

20. Hurricane season is a turbulent time! For 10 points each:

[10] This 2018 hurricane made landfall as a Category 1 storm near Wrightsville Beach, North Carolina. It occurred between Tropical Storms Ernesto and Gordon and dropped nearly three feet of rain on the Carolinas at its maximum.

ANSWER: Hurricane **Florence**

[10] Torrential rains led to the overflowing of many pig waste lagoons on North Carolina's hog farms. Because of the bacteria in these lagoons, they are this distinctive color.

ANSWER: **pink**

[10] Florence peaked at a Category 4 on this scale used to classify hurricanes based on their wind speed. It is named after a pair of American scientists.

ANSWER: **Saffir-Simpson** hurricane wind scale

<WD, Current Events>



