

2021 ACF Winter

Packet C by Gettysburg A, MIT C, NCF A, SIUE A, WUSTL A

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Tossups

1. This designer, who wrote that we should “create form out of the nature of our tasks with the methods of our time,” is often credited with the phrase “the devil is in the details.” A credo of the industrial designer Dieter Rams adds the words “but better” to some of this designer’s advice. This designer and a female collaborator created the Brno (“BUR-noh”) chair while furnishing a villa for Fritz and Greta Tugendhat. This designer’s frequent collaborator Lilly Reich worked with him to create an object with two rectangular leather surfaces for the 1929 International Exposition, the Barcelona chair. The Farnsworth House was designed by this last director of the Bauhaus (“BAO-house”). For 10 points, name this German architect of the International Style who co-designed the Seagram Building and coined the phrase “less is more.”

ANSWER: Ludwig **Mies** van der Rohe [or Ludwig Mies **van der Rohe**]

<Other Arts>

2. Jeff Fort was convicted of plotting domestic terrorism for this country with his Chicago gang the El Rukns. Near this country’s Zelten Field, Esso housed American expats in Marsa el Brega. The Monitor Group consulted for a leader of this country who was blockaded by Operation Odyssey Dawn’s no-fly zone. Ronald Reagan retaliated for this country’s 1986 bombing of West Berlin’s *La Belle* disco in Operation El Dorado Canyon and shot down its Soviet aircraft in the Gulf of Sidra. Pan Am went bankrupt after this country’s leader ordered the 1988 Lockerbie bombing. After Ansar al-Sharia’s 2012 attack on a CIA facility in this country, a House Select Committee investigated Susan Rice and Hillary Clinton in the Benghazi hearings. For 10 points, what country was long led by Muammar Gaddafi?

ANSWER: **Libya** [or State of **Libya** or Dawlat **Libiyā**; accept (Great) Socialist People's **Libyan** Arab Jamahiriya or al-Jamāhīriyah al-'Arabīyah al-**Libīyah** ash-Sha'bīyah al-Ishtirākīyah (al-'Uzmá)]

<American History>

3. Iodine bound to seven atoms of this element forms a strongly oxidizing pentagonal bipyramidal compound. Aryl groups containing this heteroatom are found in weakly-coordinating BARF ligands. Unlike other members of its group, radical substitution with this element is highly nonselective and exothermic. This is the heaviest element found in the reagent used to cleave side-chain protecting groups, which is a derivative of acetic acid. Calcium gluconate is used to neutralize an acid which contains this element as an anion (“AN-eye-on”) and which is commonly used to etch glass. This element is bonded to carbon in the repeating unit of Teflon. For 10 points, name this most electronegative element with atomic number 9 and symbol F.

ANSWER: **fluorine** [or **F** before read]

<Chemistry>

4. During a ritual in this location, local people place two white stones per person in certain parts of it. A small hut in this location contains a post whose name is translated as “heart pillar.” Unmarried members of the royal family sent to work at this location were referred to as *saio* (“sah-ee-oh”). This location is divided between an “Inner” section alongside a river and an “Outer” section that is the home of a food goddess. This location is believed to house an eight-sided object that was used to startle a goddess who was hiding in a cave after her brother threw a horse at her loom. This location is rebuilt every 20 years along with its two torii gates. For 10 points, the *Yata no Kagami*, the sacred mirror of the sun goddess Amaterasu, is in what major pilgrimage site, a grand Shinto shrine?

ANSWER: **Ise** (“EE-say”) Grand Shrine [or **Ise** Jingū; accept **Naikū** or **Gekū**; prompt on Shinto shrines or jingū by asking “what specific shrine?”; prompt on Japan or Nippon or Nihon or Honshū or Kansai region or Mie Prefecture]
<Religion>

5. After his brother comes back to life, the protagonist becomes a devotee of this character in the story “The Great Sage, Heaven’s Equal.” This character titles a 2021 translation by Julia Lovell, as well as one that renders this character’s name as “aware-of-vacuity.” In a “Supplement” to the novel he appears in, this character gets trapped in a dream world by a fish demon. This character, who has a gold-banded staff that fits in his ear, is taught the “72 transformations.” A dubious Arthur Waley translation is titled for this character, who was imprisoned for 500 years under a mountain for stealing the peaches of immortality. Pigsy, Sandy and this character accompany the monk Xuánzàng (“shwen-zahng”) on a trek to India. For 10 points, name this primate from *Journey to the West*.

ANSWER: **Sūn Wùkōng** [or Sūn **Wùkōng**; or the **Monkey** King]
<World Literature>

6. A form of this quantity is conserved in the normal process but not the Umklapp process. Bragg planes bisect vectors that represent a form of this quantity that takes on values in the first Brillouin (“bree-WANN”) zone, which is a primitive cell of a lattice of this quantity in reciprocal space. Plane waves in real space are eigenfunctions of this quantity's operator, which is proportional to the gradient. The wavevector of a particle is equal to this quantity over \hbar . The product of the standard deviations of position and this quantity is at least \hbar over two, meaning that this quantity can never be measured simultaneously with position according to Heisenberg's uncertainty principle. For 10 points, name this quantity equal to mass times velocity.

ANSWER: linear **momentum** [accept crystal **momentum** vector; prompt on **p**; do not accept or prompt on “angular momentum”]
<Physics>

7. One of these places is depicted using grattage in a Max Ernst painting that includes a childish sketch of a dove. Santería-inspired figures with crescent-shaped heads appear in one of these places that titles the masterpiece of the Cuban painter Wifredo Lam. In another painting of one of these places, the artist’s Polish mistress Jadwiga (“YAD-vee-gah”) lies naked on a divan listening to a snake charmer. Artists of the Barbizon school often painted outdoor scenes in one of these places in Fontainebleau. Both *The Dream* and *Surprised!* depict these places, as does an 1863 painting of a picnic attended by two clothed men and a nude woman. For 10 points, many primitivist scenes by Henri Rousseau depict animals in what places that include the setting of *The Luncheon on the Grass*?

ANSWER: **forests** [or **woods**; accept **jungle** or **rainforests**; prompt on park; prompt on *The Luncheon on the Grass*; prompt on *Le Déjeuner sur l’herbe*]
<Painting/Sculpture>

8. *Note to players: The answer is a political office, not an occupation like “soldier” or “painter.”* A text on this office’s “Installation” was illustrated with its characteristic white robes for its holder Rekhmirē. A holder of this office visits the “House of the Nets” and receives an omen from a god in the inscription on the Famine Stela. Stepping stones to this higher office held by Hemiunu included “High Steward” and “Fan-bearer on the Right Side of the King.” Later wisdom texts were often credited to a 27th-century BCE holder of this office, who was identified with Asclepius after his deification as a physician. This office, which included mayorship of Thebes, was held by an Old Kingdom high priest of Ra who was the likely architect of Djoser’s Step Pyramid and was named Imhotep. For 10 points, medieval Muslim empires adopted what title for the pharaoh’s top official?

ANSWER: **vizier** [or **wazīr** or **vazīr** or **djat** or **tjati**; accept Grand **Vizier**; accept **Chancellor**; accept **mayor of Thebes** before read; accept *Installation of the Vizier*; accept **Egyptian Head Minister** or equivalents; prompt on **ministers** or **administrators** or **overseers** or **advisors** or **bureaucrats** or **officials** or **courtiers** or **governors** or **treasurers** or **mayors** or similar; prompt on **Iry-pat** or **Idnw**; do not accept or prompt on “pharaoh”]

<Other History>

9. In a play by this author, a character professes “you dazzle me, you jewel, my jewel” before asking “catatonia, do you know the state of catatonia?” In another play by this author, a character frightens his wife when he tells her that a mysterious van with a wheelbarrow is coming to look for a “certain person.” At the start of a play by this author, the writer Roger Casey is the subject of a conversation between Emma and Jerry, whose affair unfolds in reverse chronological order. In a scene written by this author, a character gets his glasses broken and attempts to rape Lulu during a game of blind man’s bluff. In that play by this author, Meg gives Stanley a toy drum, which is broken during a night with Goldberg and McCann. For 10 points, name this playwright of *Betrayal* and *The Birthday Party*.

ANSWER: Harold **Pinter**

<British Literature>

10. The claim that a person with this profession was shot by police rather than dying after his vehicle hit a barricade and overturned was the subject of a sedition case. Several people with this profession were run over by a car that was supposedly driven by the son of a Minister of State for Home Affairs. The BKU, an organization for these people, led a recent “rail roko” protest. People with this profession stormed the Red Fort to protest a law that would let them sell outside the government-run *mandi* system. Since 2020, many people with this profession from Punjab have marched towards Delhi to protest a law that changes their markets. Members of this profession often produce jute and pulses such as lentils. For 10 points, the Green Revolution gave new practices for planting to what people?

ANSWER: Indian **farmers** [or **kisan**; accept word forms like **farming**; accept Punjabi or Sikh in place of “Indian”; accept **growers** or **agriculture** workers or equivalents]

<CE/Geo/Other/Pop Culture>

11. Along with a treatise against Proclus, the theologian John Philoponus wrote a polemic against this thinker’s conception of eternity. That polemic was refuted by a contemporary who mostly wrote about this earlier thinker, Simplicius. This thinker’s ideas were the basis for the theory of five universals developed in an introduction to one of this thinker’s works, Porphyry’s *Isagoge* (“eye-suh-GO-gay”). Avicenna read a book by this thinker forty times but only understood it after reading al-Fārābī’s commentary on it. This thinker developed the concepts of potentiality and actuality in a treatise on “being qua being.” Thomas Aquinas’s *Summa Theologica* refers to this thinker as “The Philosopher” and borrows his conception of a “prime mover” of the universe. For 10 points, name this author of the *Metaphysics* who was often at odds with his teacher Plato.

ANSWER: **Aristotle** [or **Aristotle** of Stagira]

<Philosophy>

12. *Description acceptable.* Records of women who fought against this European army informed the 2019 novel *The Shadow King*. The 1959 comedy *The Great War* satirized this army, which recruited Dubat and Zaptié troops for its irregular “bands.” This army and the MVSN formed the Corps of Volunteer Troops in a costly pro-Nationalist intervention in the Spanish Civil War. Austrians took 280,000 prisoners of war from this army at a 1917 battle in Slovenia. In World War I, Ernest Hemingway drove ambulances for this army, which pioneered shock troops called Arditi and was equipped with submachine guns from Beretta. This army, which included military police called Carabinieri, lost the 1896 Battle of Adwa to Menelik II of Ethiopia. For 10 points, Futurists like F. T. Marinetti fought in what army glorified by Benito Mussolini?

ANSWER: **Italian** army [or army of **Italy** or l’esercito **italiano**; accept **Italian** Armed Forces or forze armate **italiane** or **FF.AA.**; accept Royal **Italian** Army or **Regio** Esercito; accept Arma dei **Carabinieri** or Corpo dei **Carabinieri** Reali before read; prompt on **carabinieri**; prompt on **Royal** Army] (The battle in Slovenia was the Battle of Caporetto.)

<European History>

13. These phenomena result from “laws” like concern, reality, and hedonic asymmetry according to Nico Frijda (“fry-dah”). The “expression” of these phenomena titles a book that drew on frequent trips to the London zoo and a pioneering use of international questionnaires, written by Charles Darwin. Lisa Barrett has claimed that these phenomena are “constructed” by core affect, in opposition to Paul Ekman’s theory that six basic examples of these phenomena are universal. William James and Carl Lange claimed that these phenomena originate in physiological arousal. Face-to-face jobs like flight attendants often demand these phenomena’s namesake form of labor. For 10 points, IQ is often contrasted with a “quotient” named after what psychological phenomena?

ANSWER: **emotions** [accept **emotional** quotient or **emotional** labor, prompt on **affect** or **feelings** or **moods**; prompt on **EQ**, prompt on **facial expressions**]

<Social Science>

14. A pianist scrambled to play the opening octave A’s at the start of a piece by this composer during the 2019 Tchaikovsky Competition. That piece by this composer ends with the soloist humorously playing G sharp-F sharp-E-A in a fragment of the main theme. An F minor chord followed by a low F in the bass begins the *moderato* first movement of one of this composer’s concertos. A piece by this composer includes an extremely difficult “crème de menthe” variation and an 18th variation that inverts the theme, which is from an Italian composer’s 24th violin caprice. This composer’s second piano concerto in C minor and third piano concerto in D minor are among the most difficult in the repertoire. For 10 points, name this Russian composer of *Rhapsody on a Theme of Paganini*.

ANSWER: Sergei **Rachmaninoff** [or Sergei Vasilyevich **Rachmaninoff**]

<Classical Music>

15. Any sequence of values tending to infinity can be characterized as a set of these points in the Weierstrass (“VYE-er-strahss”) factorization theorem. A function and its sum with a function that it dominates have the same number of these points within a contour by Rouché’s (“roo-SHAY’s”) theorem. The poles of a meromorphic function f are these points of the function one over f . The negative even numbers are “trivial” examples of these points for a function whose others are known to lie in the “critical strip.” The real parts of these points for the zeta function are all conjectured to equal one-half by the Riemann hypothesis. Any nonconstant polynomial has one of these points by the fundamental theorem of algebra. For 10 points, name these points that, for a real single-variable function, represent intersections with the x-axis.

ANSWER: **zeros** [accept **roots**; accept **x-intercepts**; accept trivial **zeros**; prompt on **intercepts**]

<Other Science>

16. A character working at one of these locations with the minesweeper Bandi Citrom calls it “beautiful” as he is carried to a hospital for a welted knee. The narrator B. (“bee”) chooses never to have children after going to one of these locations in another novel from the same trilogy that is titled for an “Unborn Child.” While traveling to one of these locations, Madame Schächter freaks out after seeing visions of flames. The quote “There is no why here” defines one of these places according to the memoir *If This Is a Man*. The narrator asks “Where is God now?” while he watches a child being hanged at one of these locations in a novel in which Moishe the Beadle warns the people of Sighet. For 10 points, Elie Wiesel’s novel *Night* is set at what type of location where many Jews were sent under the Nazi regime?

ANSWER: **concentration camps** [or **death camps**; or **extermination camps**; or **Konzentrationslager**; accept specific concentration camps such as **Auschwitz-Birkenau** or **Buna**] (The novel in the lead-in is Kertész’s *Fatelessness*; the second line is Kertész’s *Kaddish for an Unborn Child*.)

<European Literature>

17. This object is sometimes equated with the Buddhist Cintamani (“CHIN-ta-MAH-nee”), which is said to grant its possessor the wisdom of the Buddha. Carl Jung compared this object’s status of being “above nature” to the divine foundations of Christianity. This object could be found via the process of blackening, whitening, yellowing, and reddening, as explained in books like the *Mutus Liber*. This object was represented with the squared circle symbol in the Middle Ages. Paracelsus equated a substance known as alkahest to this object, which was believed to be made from *prima materia*. This object legendarily granted immortality to Nicolas Flamel. For 10 points, name this mythical object able to turn base metals into gold, which was pursued by many alchemists.

ANSWER: **Philosopher’s Stone** [or **lapis philosophorum**; accept **hajar al-falasifa**; prompt on **Elixir of Life** by asking “What object is used to create the Elixir?”; do not accept or prompt on “Sorcerer’s Stone”]

<Mythology>

18. In this novel, the protagonist has a hallucination of Uncle Sam pointing at her and saying “I want you” when her therapist calls to convince her to try tranquilizers. This novel’s protagonist compares herself to a “beach ball with feet” after she puts on every article of clothing she owns for a game of Strip Botticelli. That scene in this novel is interrupted by the arrival of a high-school dropout named Miles who is part of a band based on the Beatles named “The Paranoids.” At the end of this novel, the protagonist awaits the title event at an auction in hopes of seeing the mysterious book bidder. Throughout this novel, graffiti of the acronym W.A.S.T.E and a muted post horn symbolize the Trystero organization. For 10 points, Oedipa Maas obsesses over a conspiracy in what Thomas Pynchon novel?

ANSWER: *The **Crying of Lot 49***

<American Literature>

19. Patients with BAP1 mutations can get an unusual form of this disease that occurs in the uvea. It’s not in the brain or pancreas, but susceptibility to this disease is increased by inherited mutations in CDKN2A. It’s not histiocytosis, but vemurafenib (“ve-mur-a-fen-ib”) treats this disease by inhibiting one of its common drivers, the V600E mutation of BRAF (“B-raf”). An important prognostic factor in this disease is the Breslow depth. This disease is detected with the “ugly duckling” sign and the ABCDE (“A-B-C-D-E”) mnemonic. As with basal cell and squamous cell carcinoma, the risk of this disease is increased by xeroderma pigmentosum. Asymmetry, irregular borders, and multiple colors are signs of this disease, whose causes include UV exposure and fair skin. For 10 points, name this malignant cancer of pigment-producing cells that usually afflicts the skin.

ANSWER: **melanoma** [accept uveal **melanoma**; prompt on skin **cancer** or **tumors** or **malignancy** or equivalents]

<Biology>

20. The rule of Queen Didda, sometimes called the “Catherine the Great” of this region, was chronicled in a history by Kalhana (“kal-huh-NAH”). Queen Kota Rani was overthrown by the founder of this region's first Muslim ruling dynasty, Shah Mir. The Sikh Empire banned the *azaan* in a city in this region where Mehr Chand Mahajan (“MEH-er chuhnd muh-HAH-jun”) claimed that Hari Singh signed the Instrument of Accession. The Johnson Line allowed a Dogra ruler of this larger region to claim the Aksai Chin region. In this region, paramilitary forces shot at protesters on the Gawkadal (“GOW-kuh-duhl”) Bridge in Srinagar (“SHREE-nuh-guhr”). Pervez Musharraf took power after a conflict in this region that began with infiltrations across the Line of Control. The Kargil War was fought over, for 10 points, what mountainous region disputed between India and Pakistan?

ANSWER: **Kashmir** Valley [accept Jammu and **Kashmir**; accept Azad **Kashmir**; accept **Kasheer**; prompt on **Gilgit-Baltistan** or **Ladakh** or **Jammu** or the **Siachen** glacier; prompt on the **Gilgit** Agency or **Baltistan**; prompt on **Aksai Chin** before read; prompt on **Himalayan** or the **Himalayas**]

<World History>

21. In a march, this king was lauded as a “fourfold devil” talented at “drinking, fighting, and womanizing.” In the War of the Jülich Succession, this king sent aid to Auhausen’s Protestant Union. A 1723 epic poem in ten cantos praised this title king, who built the Place des Vosges and Pont Neuf. This king may have pledged to put a “chicken in every pot” to honor his mistress Gabrielle d'Estrées prior to an attack on his carriage near Les Halles. Under this beloved “green gallant” king, Québec City was founded by Samuel de Champlain. In 1610, François Ravailac stabbed this King of Navarre despite his 1595 conversion to Catholicism. For 10 points, what predecessor of Louis XIII and first Bourbon king ended the French Wars of Religion via the Edict of Nantes?

ANSWER: **Henry IV** of France [or **Henri Quatre**; or **Henry III** of **Navarre**; or **Henri** de **Bourbon**; or **Good King Henry** or Le **Bon Roi Henri**; or Henri le **vert galant** or Henry the **Green Gallant**; accept “Marche **Henri IV**” or “Vive **Henri IV**” or ; prompt on **Henri** or **Henry** the Great or “Vive le roi **Henri**” or *La Henriade* (by Voltaire)]

<European History>

Bonuses

1. A 16th-century Sufi ruler with this name commissioned Nuh Agha's *Book of Dreams* and began the tradition of installing African eunuchs as the powerful Kizlar Agha. For 10 points each:

[10m] Identify this name shared by two earlier Ottoman sultans who conquered Edirne and Thessalonica and each fought a Battle of Kosovo. Mehmed II succeeded the second sultan of this name, who halted the Crusade of Varna.

ANSWER: **Murad** [accept **Murad** III or **Murād**-i sālis or Şehzade **Murad**; accept **Murad** I or **Murad**-ı Hüdavendigâr or **Hüdavendigâr** or **Khodāvandgâr**; accept **Murad** II or **Murād**-ı sānī]

[10h] After Murad I died at the 1389 Battle of Kosovo, Serbia became a disloyal Ottoman vassal ruled by men with this title, like Stefan Lazarević ("lah-zah-reh-veech"). Medieval rulers of Dobruja, Epirus, and the Morea took this Byzantine Greek title.

ANSWER: **despot** [accept Serbian **Despot**ate or Srpska **despotovina** or **Despot**ate of the Morea or **Despotáton** toú Moréos or **Despot**ate of Mystras or **Despotáton** toú Mystrá or **Despot**ate of Epirus or **Despotáton** tís Ipeírou or **Despot**ate of Dobruja or **Despot**atul Dobrogei or **Despot**ate of Karvuna or Karvunsko **despotstvo**]

[10e] While Serbia's Despot George Branković ("bran-koh-veech") fought the Bosnian Kingdom for Srebrenica's ("sreh-breh-neets-ah's") silver mines, Stefan Vukčić Kosača ("vook-cheech koh-sah-chah") carved off this region as the Duchy of Saint Sava. It follows "Bosnia" in the country's official name.

ANSWER: **Herzegovina** [or **Hercegovina**; accept Bosnia and **Herzegovina** or Bosna i **Hercegovina** or Bosnia-**Herzegovina**] (The title "herceg" or "Herzog" means "duke.")

<European History>

2. A 2001 paper co-authored by these two academics and Simon Johnson examined how region-dependent colonization practices impacted subsequent development. For 10 points each:

[10h] Name these two academics who discuss the race between states and societies in their book *The Narrow Corridor*. They also co-authored an earlier book that emphasizes the importance of inclusive institutions.

ANSWER: Daron **Acemoğlu** AND James A. **Robinson** [accept in either order; accept Kameron Daron **Acemoğlu** in place of "Acemoğlu"; accept James Alan **Robinson** in place of "Robinson"]

[10e] That 2012 book by Acemoğlu ("ah-jay-MOH-loo") and Robinson is titled *Why [these entities] Fail*. David Ricardo's original example of comparative advantage involved two of these entities exchanging wine and cloth.

ANSWER: **nations** [accept **country** or **countries** or nation-**states**, prompt on **governments**]

[10m] In *Why Nations Fail*, extractive political institutions are said to inhibit growth because elites are afraid of the "creative" form of this process, in which established producers are constantly replaced by new entrants.

ANSWER: creative **destruction** [do not accept or prompt on "disruption"]

<Social Science>

3. In this novel, Fuka-eri writes about the "Little People" in the story-within-a-story *Air Chrysalis*. For 10 points each:

[10m] Name this three-volume novel in which Aomame ("ah-oh-MAH-meh") reads *In Search of Lost Time* while in hiding after killing "The Leader." This Japanese novel is partly set in a world with two moons in the alternate year.

ANSWER: **1Q84** [or **Ichi-Kyū-Hachi-Yon**]

[10e] This Japanese author's novel *1Q84* has a voracious reader as the protagonist, like his novel *Kafka on the Shore*.

ANSWER: Haruki **Murakami** [or **Murakami** Haruki]

[10h] The protagonist reads both the novels of Derek Hartfield and novels by this character in *Hear the Wind Sing*, which along with *Pinball, 1973* and *A Wild Sheep Chase* makes up Murakami's "Trilogy" named for this character.

ANSWER: The **Rat** [or **Nezumi**; accept Trilogy of the **Rat**]

<World Literature>

4. These structures are classified as primary or secondary based on if they formed through accretion or volcanic activity. For 10 points each:

[10e] Name these planetary structures. Earth's structure of this kind is primarily composed of gaseous nitrogen and oxygen.

ANSWER: **atmospheres**

[10m] The composition of exoplanet atmospheres can be measured by observing changes in spectral lines during these events. These events may be used to detect exoplanets if Earth is aligned with their orbital plane.

ANSWER: **transits** [accept **eclipses** or **occultations**]

[10h] Simple models of atmospheres may assume this condition, allowing vertical momentum to be neglected. This condition makes astronomical bodies spheroidal and distinguishes dwarf planets from smaller bodies.

ANSWER: **hydrostatic equilibrium** [or **hydrostatic balance** or **hydrostasy**; prompt on partial answers; prompt on gravitational **equilibrium**]

<Other Science>

5. A Jonathan Eburne book compares a claim made by this theorist with one made by the loyalist paramilitary Michael Stone that his attempt to murder Martin McGuinness and Gerry Adams was performance art. For 10 points each:

[10m] Name this writer, who claimed that “the simplest surrealist act consists of dashing down into the street, pistol in hand, and firing blindly... into the crowd” in the first *Surrealist Manifesto*.

ANSWER: André **Breton** [or André Robert **Breton**]

[10h] Breton probably would have disliked the staged nature of the 1971 performance art piece *Shoot*, in which this artist was shot in the shoulder with a .22-caliber rifle by a friend.

ANSWER: Chris **Burden** [or Christopher Lee **Burden**]

[10e] Valerie Solanas may have come closer to Breton's ideal when she shot this pop artist of the *Campbell's Soup Cans* series at his New York studio called The Factory.

ANSWER: Andy **Warhol** [or Andrew **Warhola** Jr.]

<Other Arts>

6. According to the creation myth of these people, the divine king Oduduwa created land by letting a five-toed chicken spread dirt around the world after his superior, Obatala, got drunk. For 10 points each:

[10m] Name this ethnic group whose traditional religion worships Olorun as the king of all *orishas*, or minor gods.

ANSWER: **Yoruba** [or Ìran **Yorùbá** or **Káàárò-òòjùre**; accept **Yoruban** mythology or **Yoruban** religion; prompt on **Nigerian**]

[10e] After he turned his male children from suns into the waters of Earth, Olorun transformed his grandchildren into these creatures. The Zodiac sign Pisces represents one of these creatures.

ANSWER: **fish** [or **eja**; accept specific kinds of fish such as **trout**]

[10h] Oduduwa became the first ruler of this legendary Yoruba city, which is considered the birthplace of humanity. Oduduwa planted a palm nut at this location that became the progenitor of nature.

ANSWER: Ilé-**Ifé** (“ee-lay ee-feh”)

<Mythology>

7. Madame d'Aulnoy ("dall-NWAI") coined the name of this genre in a collection that includes "The Green Serpent," which was inspired by the story of Cupid and Psyche. For 10 points each:

[10e] Name this genre. Charles Perrault, a contemporary of Madame d'Aulnoy, included stories in this genre such as "Little Red Riding Hood" and "Cinderella" in his *Mother Goose Tales*.

ANSWER: **fairy tales** [or **folk** tales; or **magic** tales; or **wonder** tales; or *contes de fées*; prompt on children's stories or equivalents]

[10m] In a story collected by Madame d'Aulnoy, one of these animals helps a king rescue his queen from the Fairy Lioness. In a Brothers Grimm tale, one of these animals helps a princess retrieve her ball from a well.

ANSWER: **frogs** [or **grenouilles** or **Frosch**; accept **toads**; accept "The Benevolent **Frog**" or "The **Frog** and the Lion Fairy" or "La **Grenouille** bienfaisante"; accept "The **Frog** Prince" or "The Princess and the **Frog**"]

[10h] Madame d'Aulnoy's *Tale of Mira*, translated into English in 2020, draws from an earlier work of hers in this non-folklore genre. George Sand ("SAHND") wrote a novel in this genre that details her relationship with an ailing Frédéric Chopin.

ANSWER: **travelogue** [or **travel** narratives or **travel** literature or **travel** novels; prompt on autobiography or memoir] (The Sand travelogue is *A Winter in Majorca*.)
<European Literature>

8. Eric Lichtblau's book *The Nazis Next Door* examines "refugees" from the Third Reich who thrived in postwar America, often as scientists or engineers. For 10 points each:

[10e] Both the U.S.'s Operation Paperclip and the USSR's Operation Osoaviakhim ("oh-so-ah-vee-ah-kheem") exploited Nazi expertise on these weapons from Peenemünde ("pay-nuh-MYOON-duh") and Nordhausen. Germany's V-2 was the first long-range ballistic weapon of this kind.

ANSWER: **rockets** [or ballistic **missiles**; accept specific types of **missiles**; accept **guided** weapons; accept explosive **warheads**; prompt on bombs or explosives; do not accept or prompt on "nuclear weapons" or equivalents]

[10h] German aerospace engineers like the "father of space medicine" Hubertus Strughold settled this city's "Kraut Hill" enclave. Wernher von Braun developed NASA's Saturn rockets at this city's Marshall Space Flight Center.

ANSWER: **Huntsville**, Alabama

[10m] Uranium cubes of possible Nazi origin were found at the Pacific Northwest's facility of this kind at the former "Hanford Site." These 17 Department of Energy facilities include Sandia, Lawrence Livermore, and Oak Ridge.

ANSWER: **national laboratories** [accept Oak Ridge **National Laboratory** or Lawrence Livermore **National Laboratory** or Sandia **National Laboratory** or Pacific Northwest **National Laboratory**; prompt on laboratories]
<American History>

9. Before the artist covered over it, one of these animals was originally shown urinating on a pile of Old Master paintings in what became a 1758 self-portrait. For 10 points each:

[10e] Name these animals, one of which is tortured in that artist's series *The Four Stages of Cruelty*. One of these common pets at the foot of the central couple symbolizes fidelity in Jan van Eyck's *Arnolfini Wedding*.

ANSWER: **dogs** [or **canines**; accept **pugs**; accept **Brussels griffon**]

[10m] The aforementioned self-portrait is by this painter, who included his dog Trump in *The Painter and his Pug*. A black dog appears next to a drunk man in this artist's engraving *Gin Lane*.

ANSWER: William **Hogarth**

[10h] In *The Painter and his Pug*, the dog stands next to a palette inscribed with a shape that Hogarth gave this three-word name. Hogarth's theoretical work centered on this shape, which he argued the eye naturally follows.

ANSWER: the **line of beauty**
<Painting/Sculpture>

10. The natural esterification that occurs in wine and other alcoholic beverages mimics this reaction. For 10 points each:

[10m] Name this reaction that creates an ester by refluxing a carboxylic acid and an alcohol in the presence of an acid catalyst.

ANSWER: **Fischer** esterification [or **Fischer-Speier** esterification]

[10e] This strong, diprotic acid is commonly used as a catalyst for the Fischer esterification. This acid, which is found in lead-acid batteries, has the chemical formula H_2SO_4 (“H-2-S-O-4”).

ANSWER: **sulfuric** acid

[10h] During the second step of the Fischer esterification, this species is formed when the alcohol attacks the carbon of the carboxylic acid. This species is an oxygen cation with three bonds.

ANSWER: **oxonium** ion

<Chemistry>

11. In 1429, England fought the Lententide “Battle of the Herrings” against these two kingdoms, whose alliance motivated Henry VIII’s later War of the Rough Wooing. For 10 points each:

[10m] Name these two medieval kingdoms that concluded the “Auld Alliance” in 1295. At the time, their respective leaders were a council of twelve magnates who had deposed John Balliol, and the anti-Templar King Philip the Fair.

ANSWER: **Scotland** AND **France** [accept in either order; in place of “Scotland” accept Kingdom of **Scotland** or Rìoghachd na h-**Alba** or Kinrick o **Scotland**; in place of “France” accept Kingdom of **France** or Royaume de **France**; do not accept or prompt on “United Kingdom” or “UK”]

[10h] A Scottish princess with this name married the Dauphin Louis XI of France. A Scottish saint who founded the Firth of Forth’s Queensferry shared this name with the “Maid of Norway,” who died as a child in Orkney in 1290.

ANSWER: **Margaret** [or **Maighread** or **Margrete**; accept **Margaret**, Maid of Norway or **Margaret**, Queen of Scots; accept Saint **Margaret** of Scotland or **Margaret** of Wessex; accept **Margaret** Stewart, Dauphine of France]

[10e] After Margaret, Maid of Norway died, John Balliol won out in the “Great Cause” instead of Robert the Bruce, since his succession claim was based on primogeniture, which passes inheritance to these sons in its agnatic form.

ANSWER: **firstborn** sons [or **firstborn** children or equivalents like **eldest**; prompt on partial answers; prompt on **legitimate** children by asking “with what other trait?”]

<Other History>

12. A plaque on the Charles River’s Anderson Memorial Bridge commemorates this character with the inscription “Drowned in the fading of honeysuckle.” For 10 points each:

[10m] Name this character who lies to his father that he committed incest with his sister. In another novel, this character and Rosa Coldfield narrate the story of Thomas Sutpen’s plantation.

ANSWER: **Quentin** Compson III [prompt on **Compson**]

[10h] Quentin’s father gives him one of these objects that represents the “mausoleum of all hope and desire.”

Quentin tries to break this object, but he continues to be tortured by the sound it creates.

ANSWER: a **watch** [accept pocket **watch**; prompt on **timepiece** or **clock**]

[10e] At the end of *Absalom, Absalom!*, Quentin is asked, “Why do you hate [this region]?” William Faulkner is an author from this broad American region, whose plantations are depicted in *Gone with the Wind*.

ANSWER: the **South** [or the American **South**; accept “Why do you hate the **South**?”]

<American Literature>

13. A chant named for this figure wishes him victory and says that he “illuminates the three worlds.” For 10 points each:

[10h] Name this figure praised in a namesake chalisa by Tulsidas. A festival named for the Jayanti of this figure is held during the month of Chaitra to mark his birth.

ANSWER: **Hanuman** [or **Hanumat** or **Anuman** or **Hanumantha** or **Hanumanthidu**; accept **Vayuputra** or **Pavanputra** or **Maruti**; accept **Anjaneya**; accept **Vajrang Bali** or **Bajrang Bali**; accept **Kapeeshwara**; accept **Hanuman Jayanti** or **Hanuman Chalisa**]

[10e] Hanuman is often worshipped for his devotion to this person, a king of Ayodhya (“uh-YODE-yah”). Tulsidas rewrote an epic in which this hero rescues his wife Sita.

ANSWER: **Rama** [or **Ramachandra** or **Ramar** or **Ramudu**; accept **Dasarathi**; prompt on **Raghava**]

[10m] Hanuman’s devotion to Rama is often considered to be an example of this concept. This term also refers to religious movements devoted to a supreme deity such as Vishnu or Shiva.

ANSWER: **bhakti** [accept **bhakta**]

<Religion>

14. During one stage of this process, telomeres congregate to create a “telomere bouquet.” For 10 points each:

[10m] Name this phase of meiosis (“my-OH-sis”), which is subdivided into leptotene, zygotene, pachytene, and diplotene stages. Oocytes arrest at this stage, during which crossing over occurs.

ANSWER: **prophase I** [do not accept or prompt on “prophase” or “prophase II”]

[10e] During prophase I, homologous examples of these structures pair up. Humans typically have 23 pairs of these structures, which are formed when sister chromatids join at their centromeres.

ANSWER: **chromosomes** [accept homologous **chromosomes**]

[10h] This type of chromosome, the only one to not have a “sub” version, occurs when the *p* arm is too short to be visible. The Y chromosome in humans is one example of this type of chromosome.

ANSWER: **acrocentric** chromosomes

<Biology>

15. Answer the following about the board game company Avalon Hill, for 10 points each.

[10m] Avalon Hill is a subsidiary of this company, which is itself a subsidiary of Hasbro. Appropriately for its name, this company publishes *Magic: The Gathering* and *Dungeons & Dragons*.

ANSWER: **Wizards** of the Coast [accept **WotC**]

[10e] The use of tiles of this shape in board games, later adopted by games like *Settlers of Catan* (“cuh-TAHN”), was pioneered by Avalon Hill. Triangles, squares, and these shapes are the only regular polygons that can tile the plane.

ANSWER: **hexagons**

[10h] This board game by Allan Calhamer has been published by Avalon Hill since 1976. The Lepanto (“LAY-pahn-toh”) opening is a strategy in this seven-player game whose win condition is control of 18 out of 34 supply centers.

ANSWER: **Diplomacy**

<CE/Geo/Other/Pop Culture>

16. A prince of this dynasty used a cavalry encirclement to defeat a rebel army under Lǐ Zichéng (“lee zuh-chung”). For 10 points each:

[10e] Name this last ruling dynasty of China that came to power after defeating the Míng. This Jurchen dynasty’s conquest of China was masterminded by Prince Dorgon, who allied with Míng general Wú Sāngui (“san-gway”).

ANSWER: **Qīng** dynasty [or Great **Qīng**, accept Dà **Qīng**, accept **Manchu** dynasty or **Mǎnzú** dynasty; do not accept or prompt on “Qin”]

[10m] Jurchen households were organized by Nurhaci (“nur-HAH-chee”) into a system of this many banners, with each functioning as a separate army. An alliance of this many nations attacked the Qīng (“ching”) dynasty to suppress the Boxer Rebellion.

ANSWER: **eight** [accept **Eight** Banners; accept **Eight** Nation Alliance, accept **Bāqí**, accept **Bāguó liánjūn**]

[10h] The Eight Banners of the Qīng army were initially outperformed by the mostly Hàn Green Standard Army during this conflict. Wú Sāngui led one faction during this rebellion after resigning his Qīng governorship.

ANSWER: Revolt of the **Three Feudatories** [or **Sānfān** zhī luàn]

<World History>

17. This musical genre was popularized in England by the publication of Nicholas Yonge’s *Musica Transalpina*. For 10 points each:

[10m] Name this secular genre of vocal music that developed in Italy during the Renaissance. Claudio Monteverdi wrote nine books of pieces in this genre.

ANSWER: **madrigals**

[10h] This colorful Italian composer, who killed his wife and her lover, composed highly chromatic madrigals like *Moro lasso al mi duolo*. Aldous Huxley praised his music as a “bridge back to the human world.”

ANSWER: Carlo **Gesualdo** da Venosa

[10e] The madrigalist Giulio Caccini helped found this musical genre as part of the Florentine Camerata. This large-scale genre, which usually includes arias, recitatives, and choruses, is exemplified by Claudio Monteverdi’s *L’Orfeo*.

ANSWER: **opera** [accept **favola in musica**]

<Classical Music>

18. Followers of this religion hold that all beings possess impermanence and unsatisfactoriness, two of three “marks of existence.” For 10 points each:

[10e] Name this religion that teaches its followers to pursue a philosophy of the “middle way” between asceticism and indulgence. This religion’s founder taught about the Four Noble Truths.

ANSWER: **Buddhism** [accept specific schools of Buddhism such as **Mahāyāna** or **Theravāda**]

[10m] The third mark of existence is the doctrine of *anattā*, which refers to the nonexistence of this concept. One of the fundamental differences between Buddhism and Hinduism is whether this concept exists.

ANSWER: **self** [or **soul**; accept non-**self**; accept **ātman**]

[10h] Theravāda Buddhists often compare *anattā* to this quality. The Madhyamaka (“MUD-yah-mah-kah”) school of Buddhism teaches that all beings possess this quality, based on Nāgārjuna’s teaching that beings do not possess *svabhāva* (“svah-BAH-vah”).

ANSWER: **śūnyatā** (“SHOON-yuh-tah”) [or **emptiness**; accept **voidness**; prompt on **anātman** or **non-self** or **non-soul**]

<Philosophy>

19. The protagonist uses an offer to borrow one of these items as a pretense to visit a man's home at night, where the two discuss a nursery rhyme about church bells. For 10 points each:

[10h] Name these items, one of which a woman hurls at a telescreen as she angrily yells "Swine! Swine! Swine!" At the novel's end, the protagonist joins a "sub-committee of a sub-committee" that arises in the creation of these items.

ANSWER: Newspeak **dictionary** [or **lexicon**; prompt on **books**]

[10m] In 1984, the philologist Syme works on the definitive Eleventh Edition of the Newspeak dictionary for this organization. Winston Smith and Julia both work for this organization within the Party government of Oceania.

ANSWER: **Ministry of Truth** [or **Minitrue**]

[10e] 1984's appendix notes that Newspeak only uses this word's verb form, as in a type of cognitive dissonance that precedes this word with "double." In 1984, "Police" named for this word suppress this type of "crime."

ANSWER: **thought** [or **think**; accept word forms; accept double**think**; accept **Thought** Police or **thoughtcrime**]

<British Literature>

20. The finite volume method can be used to simulate these substances. For 10 points each:

[10e] Name these substances whose Newtonian type is governed by the Navier–Stokes equations. These substances with no fixed shape encompass liquids and gases.

ANSWER: **fluids**

[10h] An alternative to the Navier–Stokes equations in computational fluid dynamics is a discretization of this equation. This equation assumes molecular chaos to track the evolution of a particle probability density function.

ANSWER: **Boltzmann** transport equation [accept lattice **Boltzmann** method; prompt on **transport** equation]

[10m] The Navier–Stokes equations are a limit of the Boltzmann equation when the Knudsen number, and therefore this quantity, is small. This quantity is the average distance that a particle travels before interacting with another one.

ANSWER: **mean free path** [prompt on **mfp**; prompt on **lambda**]

<Physics>

21. In an enigmatic poem from the Exeter Book, a woman pines for a man with this one-syllable name before addressing another man named Eadwacer ("EED-wace-er"), who may be her captor. For 10 points each:

[10m] Give this syllable, which is merged with "Cyne" ("KIN-uh") in the name of a poet whose signed poems include *Elene* and *Juliana*. This syllable ends the name of a poem preserved in the Nowell Codex about a king of the Geats ("GAY-ahts").

ANSWER: **wulf** [or **wolf**; accept **Cynewulf** or **Beowulf**; accept "**Wulf** and Eadwacer"]

[10e] The epic poem *Beowulf* was written in this language used by the poet Cynewulf and by the authors collected in the Exeter Book. This language developed into a later "Middle" form used to write *The Canterbury Tales*.

ANSWER: **Old English** [or **Anglo-Saxon**; do not accept or prompt on "Middle English"]

[10h] *Beowulf* and *Elene* both use a poetic trope in which a wolf, a raven, and an eagle are the namesake "beasts" of this sort of event. One of these events titles an Old English poem that depicts the "ofermōde" ("OH-fer-mode") of the hero Byrhtnoth ("BERT-noth").

ANSWER: **battle** [accept beasts of **battle**; accept "The **Battle** of Maldon"; do not accept or prompt on related answers like "war"]

<British Literature>