

Minnesota Open V

Packet by Connor Teevens, Shan Kothari, Ryan Dillon, and Joe Nutter

Edited by Auroni Gupta, Andrew Hart, Gaurav Kandlikar, and Cody Voight

Tossups

1. **One novel set in this country brings together a veteran who is haunted by the memory of having eaten the corpse of his dead comrade, a bird enthusiast who owns the dog Blackie, and a woman who feels guilty for having seduced and tossed aside her classmate Otsu. After standing by a waterfall in this country, Shigekuni Honda is reminded of Kiyooki's promise to meet him beside the falls in *The Temple of Dawn*. Numada, Isobe, and Mitsuko are three tourists in this country in Shusaku Endo's novel (*) *Deep River*. This country's landmark of Vulture Peak is the destination of a motley crew consisting of the Dragon King, Sandy, and Pigsy, who follow the monk Xuanzang in his attempt to retrieve Buddhist scriptures. An incident in this country's Marabar Caves leads Adela Quested to accuse Dr. Aziz of rape. For 10 points, name this country, the destination of Sun Wukong in *Journey to the West*, which Adela and her aunt find passage to in an E.M. Forster book.**
ANSWER: Republic of India [or Bharat Ganarajya]
2. **Michael Wade evaluated the effects of this phenomenon on the adult population size of lab *Tribolium* beetles. Eldakar et al. claimed that this phenomenon exists in the wild on the basis of the effect of population structure on sexual conflict in water striders. The "structured deme" model of this phenomenon was proposed by D.S. Wilson. Wynne-Edwards was an early proponent of this idea, but was refuted by G.C. Williams, who claimed that whatever effects this concept may have are mitigated because its namesake unit has a long generation time. (*) Richard Dawkins argued against this idea and advocated for a competing gene-centered theory in *The Selfish Gene*. For 10 points, name this evolutionary phenomenon in which genetic change can occur through differential proliferation of populations independently of its effect on individuals.**
ANSWER: group selection
3. **This composer wrote a canon vertically centered on A4 in the brief second movement of one work. This composer wrote his PhD thesis on the works of Heinrich Isaac, which he incorporated into his two-movement symphony dedicated to his daughter Christine, which contains nested palindromes. The tone row's retrograde and inversion are equivalent in this composer's *String Quartet*, which is constructed of inversions and transpositions of the B-A-C-H motif. By splitting the opening theme between the trombone, horn, and trumpet in orchestrating Bach's six-part *ricercare* from the *Musical Offering*, this composer illustrated his teacher's concept of Klangfarbenmelodie. His *Concerto for (*) Nine Instruments* illustrates both his use of the twelve-tone system and his noted brevity. During the Allied occupation of Austria, this composer was killed by an American soldier. For 10 points, name this Second Viennese school composer, a student of Schoenberg.**
ANSWER: Anton Webern
4. **In a draft of a speech never given, this person claimed that "the troops...did all that bravery could do." This orator gave a speech that claims that the U.S. wishes to be identified with the "book of history, and not with isolated pages." This person warned a nation "giddy with prosperity" that "we must avoid the impulse to live only for today." This speaker highlighted the "theft from those who hunger" represented by "every gun that is made" in a speech that contains the image of "humanity hanging from a cross of iron." This person addressed the U.N. in a speech that introduced the possibility of peaceful (*) nuclear energy. This giver of the "Atoms for Peace" and "Chance for Peace" speeches also warned of allowing the "unwarranted influence" of contractors within the "councils of government." For 10 points, name this president who, in his farewell address, warned of the military-industrial complex.**
ANSWER: Dwight [David] Eisenhower [or Ike]
5. **In one work, this author advanced three "knowledge interests": understanding, for the humanities; criticizing oppression, for the social sciences; and understanding nature, for the natural sciences. One work by this thinker posits that bureaucratic "instrumental rationality" and the market can cause rationalization and colonization of the lifeworld. This thinker breaks discourse into aesthetic, therapeutic, and explicative forms in a work whose first volume is titled *Reason and the Rationalization of Society*. This person promoted scenarios in which discourse is governed by basic implied rules agreed upon by all parties as (*) "ideal speech situations." One of this person's concepts is a space apart from the market where critical debate can take place, exemplified by eighteenth-century salons, literary societies, and coffee houses. For 10 points, name this author of *The Theory of Communicative Action* and *The Structural Transformation of the Public Sphere*.**
ANSWER: Jurgen Habermas

6. **Signal versus noise in this phenomenon is the subject of a 1984 paper by Kevin Trenberth. Regions named for this phenomenon include “one plus two,” “three,” “three-point-four,” and “four.” Total cloudiness fraction of the sky is one of six variables used in a multivariate index of this phenomenon. With the redefinition of the criteria for this phenomenon in 2003, a “similar but different,” or “Modoki,” form of it was discovered. Due to the associated increase in vertical wind shear, this phenomenon can depress the formation of (*) Atlantic hurricanes. Its atmospheric component is evaluated using the air pressure difference between Tahiti and Darwin. It’s caused by a weakened Walker circulation. This phenomenon suppresses coastal upwelling off the coast of Peru, destroying anchovy harvests. For 10 points, name this phenomenon that causes a rise in surface temperature in the eastern equatorial Pacific and whose name comes from the Spanish for “little boy.”**
ANSWER: El Niño Southern Oscillation [or Southern Oscillation before “1+2” (prompt after); or ENSO; don’t take “La Niña”]
7. **This architect’s urban regeneration plan for metropolitan Bilbao centers on the Iberdrola Tower. This architect created sweeping wedge-like towers in a contribution to the revitalizing Liverpool One plan, the One Park West residential and office building. A building designed by this person that contains Winter Garden was damaged during the 9/11 attacks. This person designed an art deco skyscraper attached to shopping center in which an eagle-shaped fountain drips water from the third to first floor beneath a domed glass ceiling. This designer of the (*) World Financial Center in New York and the Gaviidae Common shopping center and adjacent Wells Fargo Center in Minneapolis designed a building located above the KLCC park that contains a skybridge connecting two structures at their forty-first and forty-second floors. For 10 points, name this Argentine-American architect of the Petronas Towers.**
ANSWER: Cesar Pelli
8. **This thinker introduced a coefficient of resource utilization to evaluate the deadweight loss associated with Pareto non-optimality. Expanding on a result by Sonnenschein, this person proved with Mantel that Walrasian identity and continuity characterize the aggregate excess demand function in a result that nevertheless shows that individual rationality assumptions do not imply uniqueness or stability of general competitive equilibria. With an American, this person proved that demand independence, perfect competition, and convex preferences guarantee the existence of at least one set of prices such that aggregate supply and demand are (*) equal for all commodities. This person showed that any Walrasian equilibrium is Pareto-efficient, thus proving the fundamental theorem of welfare economics, with Kenneth Arrow. For 10 points, name this winner of the 1983 Nobel for his reformulation of general equilibrium theory, a French-born economist.**
ANSWER: Gerard Debreu
9. **In an allegorical poem by this author, sin is the “distinguished precipice,” David is “the Troubadour,” Judas is “the Great Defaulter,” Satan is “the Brigadier,” and Eden is “the ancient Homestead.” This author notes that “*Microscopes* are prudent in an emergency” in contrast to faith, which is “a fine invention / When Gentlemen can see.” This author wrote that “The Bible is an (*) antique volume—Written by faded men” in one poem and described how charts and compasses are discarded when “rowing in Eden!” in another. In one poem by this writer, the title character is unmoved when “an emperor is kneeling / Upon her mat,” since she “shuts the door” immediately following the title action. This author of “Wild Nights! Wild Nights!” and “The soul selects her own society” described how from “tankards scooped in pearl,” the speaker “taste[s] a liquor never brewed.” For 10 points, name this Belle of Amherst.**
ANSWER: Emily [Elizabeth] Dickinson
10. **A coup deposing of a holder of this royal title was the subject of a CIA agent’s remark “how can you rape a whore?” The longest-reigning holder of this title was assassinated by an anarchist who supposedly shot him after asking for money and being denied. Another holder of this title disagreed with a prime minister over foreign policy, prompting the National Schism. The irredentism of various rulers to hold this title was an outgrowth of the Megali Idea. The first ruler to hold this title arrived on the HMS *Madagascar* after being elected under the Convention of London. The first ruler to hold this title was from the House of (*) Wittelsbach, and subsequent rulers were from the House of Schleswig-Holstein-Sonderburg-Glücksburg, beginning with the long-reigning George I. The final person to hold this title was deposed in the Colonels’ Coup of 1967. For 10 points, Otto I was the first man to hold what title also held by Constantine I and II?**
ANSWER: King of Greece [or King of the Hellenes; prompt on Monarch of Greece or other more general titles]
11. **In Kwakiutl mythology, this animal was once asked to spot enemy canoes, so he traded attributes with a slug but refused to trade back, dooming slugs to be slow. In *Culhwch and Olwen*, one of these animals directs Arthur’s men to his ancient enemy, the Salmon of Llyn Llyw, when asked about the whereabouts of the child Mabon. The early Sumerian king Etana was granted a child for saving one of these animals from starvation after a serpent violated a truce negotiated by Shamash. In Norse mythology, a character in this form breaks his promise to allow an earth oven to cook and gluttonously consumes an (*) ox until Loki attacks him. That character, Thiazi, later snatches Idunn in this form, which was also used by Zeus to abduct Ganymede. The Aztecs searched for this animal perched atop a cactus when relocating homelands. For 10 points, name this giant bird that has a snake in its mouth on the flag of Mexico because of that myth.**
ANSWER: eagles [prompt on birds until mentioned]

12. **In one role, this actor plays a character who constructs a seventy-five-year plan and dislikes his friend's affair with Ines, a Paraguayan hotel worker. This actor played a writer of a work whose protagonist works at the "nostalgia shop" *Out of the Past* in a film in which this actor's on-screen fiancée hooks up with pedantic asshole who fakes Rodin knowledge. In another role, also as a writer, this actor speaks the line "And they rode on in the friscalating dusklight," which concludes a reading from his character's novel that "presupposes" that a general didn't die at (*) Little Bighorn. In a different film, this actor, who played the writer of *Old Custer* in one movie, plays a man who is transported back to the 1920s, where he talks with Picasso and Hemingway, in his role as Gil Pender in Woody Allen's *Midnight in Paris*. For 10 points, name this actor who plays Dignan in *Bottle Rocket* and Eli Cash in *The Royal Tenenbaums*, both opposite his brother, Luke.**
ANSWER: Owen [Cunningham] Wilson [prompt on Wilson]
13. **One character in this work states that the national pastime of her city is "the game of public confession." In the second act of this play, another character asks for a sign to guide him into taking a cowardly action, but upon seeing light flashing around a stone, he resolves to do the opposite. One character in this play chants the phrase "Abraxas, galla, galla, tsay tsay," causing the title figures to behave like caterpillars. In its second act, a stone is rolled away from the entrance of a cave, allowing the (*) dead to be released for one day to punish the living for their sins. In this play, Jupiter reveals that people are free and that the gods have no real control over them. Its title beings torment the citizens of Argos for not preventing the killing of Agamemnon. After the murders of Aegisthus and Clytemnestra, its title creatures transform into the Furies and torture Orestes for his affirmation of free will. For 10 points, name this philosophical adaptation of the *Oresteia* by Jean-Paul Sartre.**
ANSWER: *The Flies* [or *Les Mouches*]
14. **Charles Blinderman and David Joyce developed a project named for this figure's plot, and Marcello Fruzzi compared this figure to Castaneda's Don Juan Matus. Henry Fairfield Osborne developed his theory entirely based on this figure, and Pierre Teilhard de Chardin has been implicated in the history of this figure. Wilfred Le Gros Clark spent much of his late career working with this figure. Joseph Weiner realized that this figure's (*) teeth had actually been filed down at the same time that Kenneth Oakley's fluorine-based tests revealed that different parts of this figure came from different time periods. For 10 points, name this figure presented to the world by Charles Dawson whose skull was actually just a human skull appended to orangutan jaws.**
ANSWER: Pittdown Man [or *Eoanthropus dawsoni* before "Dawson"]
15. **Paul Ledoux developed a variational form of this statement to predict the pulsation period of a star. When this statement was used to estimate the mass of the Coma cluster, it yielded a mass-to-light ratio that differed by over an order of magnitude from that of our Sun and led Zwicky to propose the existence of dark matter. This statement is used to derive the approximate relation between the size of a cluster and its velocity dispersion. One of Lagrange's identities reduces to it when the time average of the second time derivative of the moment of inertia is zero. It can be derived by taking the (*) spatial moments of the equations of motion; other derivations use a quantity defined as the sum, over all point particles, of the dot product between momentum and position vectors of the point particles. For 10 points, name this theorem stating that twice the time average of the total kinetic energy plus the time average of the total potential energy is zero.**
ANSWER: virial theorem
16. **One painting by this artist shows the title bonneted crones extending their left arms forward, and another was based on *Paradise Lost* and depicts the title *Shepherd's Dream*. Another work by this artist of *The Three Witches* shows an orange clad woman brandishing a torch, and some of his other Shakespeare-inspired work includes *Lady Macbeth Sleepwalking* and *Macbeth Consulting the Vision of the Armed Head*. One work by this artist shows a giant serpent constricting around a man on (*) horseback. One work by this artist is a depiction of a ghostly figure sitting cross-legged with its head hidden in its long hair. This creator of *Silence* made several depictions of a scene that shows a pale-eyed horse staring at an unconscious female on whose chest sits a demon. For 10 points, name this Anglo-Swiss artist who painted *The Nightmare*.**
ANSWER: Henry Fuseli
17. **In one account of this ritual, Gotteschalk of Volmarstein saw an infant as it was being carried out. Caesarius of Heisterbach wrote a book relating stories about this ritual, during which Bononillo's starved mule bowed in reverence during a contest in another story. In another story about this ritual, a family threw a dying man's vomit into a fire, only to see one of its contents, which was administered as Viaticum, (*) unscathed by the fire and surrounded by light. The phrase "in a way surpassing understanding" underscores the Catholic view of this ritual, which centers on the "real presence" of a certain person in the host. For 10 points each, name this Christian ritual in which parishioners consume the body and blood of Jesus Christ during Mass.**
ANSWER: the Eucharist [or holy communion; or sacrament of the altar; or Blessed Sacrament; prompt on Lord's Supper]

18. **This colony's native citizens began to conduct "Underhill Meetings" after a government official disputed Edward Underhill's claims that conditions were dire for natives. Members of St. Ann's Parish attempted to send a letter to Queen Victoria asking for land before a rebellion in this colony began. Alexander Nelson was sent to put down a rebellion in this colony. Prominent Brits like Charles Darwin and John Bright joined a John Stuart Mill-convened committee named for this country in an attempt to prosecute its colonial governor, who violently suppressed a rebellion led by Paul Bogle and (*) George Gordon. Former Australian explorer Edward Eyre was the colonial governor of this country during the Morant Bay Rebellion. For 10 points, Port Royal was a city in what British colony, the home of Henry "Captain" Morgan?**

ANSWER: Jamaica

19. **The main character of this story is satisfied with a transaction he made at a pawn shop for six shillings, arranging the coins between his thumb and fingers in the shape of a cylinder. Its protagonist marvels at the alliteration of the words "Bernard Bodley be," an incomplete portion of the last phrase he was able to write. In this story, the perfumed Miss Delacour charms the boss of the main character, who explodes with rage upon finding about two missing letters. Although this story's main character is smugly satisfied at having uttered the comeback "I don't think, sir...that that's a fair question to put to me" to his boss (*) Alleyne, his irritation compounds as he loses an arm-wrestling match to a kid, is abandoned by his drinking buddies who go to hit on girls, and fails to get all that drunk anyway. For 10 points, name this story in which the unhappy Farrington returns home and unleashes his anger on his son, found in James Joyce's *Dubliners*.**

ANSWER: "Counterparts"

20. **This ruler became depressed following an illness acquired at a meeting of the Protestant Union. This person gained one royal position after John George I refused it. Gabriel I of Hungary supported this person, who faced significant resentment after the iconoclasm of Abraham Scultetus. The British monarchs are descended from this person's daughter, Princess Sophia. This person opposed the proposed "Spanish Match" of father-in-law James I. This ruler's reign was undermined by the Treaty of (*) Ulm, which allowed Christian of Anhalt's defeat at the Battle of White Mountain. After the Bohemian Revolt, the successful placement of this person on the throne helped instigate the Thirty Years' War. For 10 points, name this Elector Palatine who briefly became ruler of Bohemia, where he was known as the "Winter King."**

ANSWER: Frederick V, Elector Palatine [or Frederick I of Bavaria; prompt on Frederick; accept Frederick the Winter King or Friedrich der Winterkoenig before "Winter King"]

21. **One of these species is formed as an intermediate in the synthesis of compounds like aristolochene and premnaspirodiene. The reaction of triphenylmethanol and sulfuric acid yields one of the first one of these species to be observed. A stable one of these is created by protonation of a hydroxyl group during the Pinacol rearrangement, and hydride or methyl (*) shifts can cause rearrangements in these compounds. These compounds are intermediates in the Wagner-Meerwein rearrangement, and they are formed when carbohydrates act as bases in superacids. Tertiary versions of these compounds are far more stable than primary ones. For 10 points, name these compounds that appear as reactive intermediates in SN1 and E1 reactions, and contain a positively charged carbon ion.**

ANSWER: carbocations [or carbonium ions]

Tiebreakers

22. **A poetry collection by John Wilson influenced a play by this author in which a priest attempts to stop the Chairman from leading a group of revelers in singing ditties while their city goes to hell. A character created by this author asks "why did you come to visit us / In this forgotten quiet place?" in a letter in which she "write[s] to you...when that is said / What more is left for me to say?" In another play, this author created a character who is increasingly upset that God rewarded his lazier rival and pours poison in the rival's drink, confirming that "villainy and genius / are two things that can never go together." This writer's plays (*) *Feast in the Time of Plague* and *Mozart and Salieri* are two of four "little tragedies." This writer used iambic tetrameter with alternating masculine and feminine rhymes in the stanzas of his magnum opus, in which the title character duels Lensky and rejects Tatyana. For 10 points, name this Russian author of *Eugene Onegin*.**

ANSWER: Alexander [Sergeyevich] Pushkin

23. **According to documents discovered in 2010, this person was the subject of possible Nazi-supported coup that would have installed Secretary of Agriculture Saturnino Cedillo. This electoral defeater of Jose Gonzalo Escobar deported a predecessor to the United States. Josephus Daniels was the U.S. ambassador to this leader, who restored the *ejido* program of land reform. This leader's rise to power began when Manuel Pérez (*) Treviño lost out on succeeding an interim president. This person's mentor, who reigned during an era known as the Maximato, was Plutarco Calles. This leader justified an action of government expropriation under Article 27 of the Constitution. For 10 points, name this Mexican president who nationalized oil reserves, creating PEMEX.**

ANSWER: Lazaro Cardenas del Rio

24. **An autoimmune reaction to one of these proteins in astrocytes causes neuromyelitis optica. Some regions of these proteins contain a highly conserved “N-P-A” motif. Residues from helices 2 and 5 and the E loop of these proteins form the aromatic/arginine (“aromatic slash arginine”) constriction region toward the extracellular side, which determines their selectivity. These proteins form one branch within the Major Intrinsic Proteins family. Inadequate expression of these proteins can lead to (*) nephrogenic diabetes insipidus, and the insertion of these proteins into apical membranes of epithelial cells is triggered by vasopression to allow for increased urine concentration and decreased dehydration. For 10 points, name these integral membrane transport proteins that regulate the flow of water into and out of the cell.**

ANSWER: aquaporins [accept AOPs; accept aquaglyceroporins because I don't think those are every ruled out; prompt on “water channels”]

Minnesota Open V

Packet by Connor Teevens, Shan Kothari, Ryan Dillon, and Joe Nutter

Edited by Auroni Gupta, Andrew Hart, Gaurav Kandlikar, and Cody Voight

Bonuses

- Species at the top right of these diagrams are strongly oxidizing, and a positive gradient between two points on one of these diagrams indicates that the standard cell potential for that processes is positive. For 10 points each:
[10] Name these diagrams that show the relationship between the ratio between delta-G and Faraday's constant to the oxidation state of a species.
ANSWER: **Frost-Ebsworth** Diagrams [or **Frost** diagrams]
[10] If a compound lies above a line that connects two species with lower and higher oxidation states on a Frost-Ebsworth diagram, it is unstable and will undergo a disproportionation reaction, during which it is simultaneously oxidized and subjected to this other type of reaction.
ANSWER: **reduction** [accept word forms like **reduced**]
[10] Whereas Frost-Ebsworth diagrams describe the thermodynamic stability of reactions, it does not give any insight about this other type of reaction control. This type of control is dependent on a reaction's activation energy.
ANSWER: **kinetic** control
- Validate the Nobel Committee by answering the following about a writer who depicted "the landscape of the dispossessed," for 10 points each.
[10] We're of course talking about Herta Muller, who may be best known for this autobiographical novel in which Lola and four other girls sharing a college dorm suffer under the yoke of the oppressive Ceausescu regime in Romania.
ANSWER: *The **Land of the Green Plums*** [or **Herztier**]
[10] Many of Muller's novels highlight the unique oppression faced by this ethnic group, which she belongs to, in Romania. Another Nobel Laureate of this nationality wrote the *Danzig Trilogy*, which contains *The Tin Drum*.
ANSWER: **German** [or **Deutsche**]
[10] Rather than ask you about some of Muller's amusingly titled works, such as *The Foreign View, or Life is a Fart in a Lantern*, name this Austrian author of *The Song of Bernadette* whose namesake human rights award was won by Muller in 2009.
ANSWER: Franz [Viktor] **Werfel**
- Help wealthy corporate lawyer Michael Arnold navigate the intricacies of rail law, for 10 points each.
[10] Marnold would know that the 1886 *Wabash* case struck down this state's attempt to regulate a railroad, if he hadn't spent his whole Con Law II class looking at the "Rich Kids of Instagram" tumblr. Because Marnold was too busy laughing at a tween in a helicopter to pay attention, we'll tell you that the *Munn* case also arose from this state.
ANSWER: **Illinois**
[10] Marnold should know that this 1903 law strengthened the Interstate Commerce Commission by allowing it to fine railroads that offered rebates to customers. But because Marnold was too busy suing indigent customers on behalf of major corporations to learn that, we'll let slip that this law's namesake also co-names a bill with Mann.
ANSWER: **Elkins** Act [or **Mann-Elkins** Act]
[10] While perusing the Brooks Brothers website for the finest breathable menswear, Marnold vaguely heard his Civil Procedure II professor droning on about this railroad company's case against Thompkins, in which the Supreme Court held that the federal courts must apply substantive state common law.
ANSWER: **Erie** Railroad Co. [v. Thompkins]
- She was a product of Atum's masturbation, along with her brother Shu. For 10 points each:
[10] Name this Egyptian goddess of moisture and rain.
ANSWER: **Tefnut** [or **Tefenet**]
[10] Similar to Sekhmet, Tefnut sometimes changed into a lioness when wrathful and escaped to Nubia, from where she would be retrieved by this wise Egyptian god with an ibis or baboon head.
ANSWER: **Thoth** [or **Djehuti**]
[10] Tefnut was sometimes connected with other goddesses as the Eye of Ra, including this mother goddess, usually depicted as a woman with the wings of a white vulture. Her son with Amun was Khonsu.
ANSWER: **Mut**

5. Answer the following questions about a common thing in American literature, none of which has to do with Barbara Kingsolver's awful novel *The Bean Trees*, for 10 points each.
 [10] A rewrite of the Pledge of Allegiance is dedicated to the soil of the title place of this poetry collection. Its title refers to what many Native American tribes called the North American continent.
 ANSWER: **Turtle Island** [by Gary Snyder]
 [10] This author graphically described live turtles being decapitated to be made into soup in his novel *A Walk on the Wild Side*. The card-dealer and morphine addict Frankie Machine is the title character of another novel by him.
 ANSWER: Nelson **Algren** [the other novel is *The Man with the Golden Arm*]
 [10] A tortoise attempting to cross a freeway is almost run over by a car in this novel about the Joad family's emigration from Oklahoma to California, written by John Steinbeck.
 ANSWER: *The **Grapes of Wrath***
6. You are playing as Rob Carson in the hit new spinoff to *Ski Free*, *Rob Carson: Alpine Climber*. For 10 points each:
 [10] In Level One, Rob gets pumped by listening to The Mighty Mighty Bosstones and then scales this tallest mountain in the Alps, which is named for the color of its snowy slopes.
 ANSWER: Mont **Blanc** [accept Monte **Bianco**, La Dame **Blanche**, or Il **Bianco**, prompt on "**White** Mountain"]
 [10] The final level is this isolated, craggy mountain on the Swiss-Italian border, which is also known as Mount Cervino. Help Rob navigate its particularly difficult north face by using carabiners that double as fashionable spiky bracelets.
 ANSWER: the **Matterhorn**
 [10] Playing the *Ski Free* role of abominable snowman who eats you if you go too far is this Englishman. In real life, he was the first to scale the Matterhorn and Chimborazo; in the game, if Rob falls, this man drags him away just before Rob's careening body flattens a crowd of high-school-age girls trying to get his autograph.
 ANSWER: Edward **Whymper**
7. Euler reduced the general form of these equations to $x^5 + px^3 + qx^2 + r = 0$. For 10 points each:
 [10] Name this first class of polynomials that are not generally solvable algebraically in a finite number of elementary operations.
 ANSWER: **quintics** [or degree **five** polynomials; accept reasonable equivalents]
 [10] Anyone, even Chris Ray, can prove the general unsolvability of quintics by showing that this type of group of the field extension associated with quintics over the rationals is not solvable. These groups are permutations of the roots of polynomials having the property that any algebraic equation satisfied by the roots is still satisfied after the roots have been permuted.
 ANSWER: **Galois** groups
 [10] This mathematician established a connection between rotations of the icosahedron and the solution to the quintic equation. His *Erlanger Programm* unified geometry as the study of the properties of a space that are invariant under a given group of transformations.
 ANSWER: Felix **Klein**
8. This term was also applied to directors of the British New Wave, who, like the literary movement of this name, brought attention to the lives of the working class. For 10 points each:
 [10] Give this term, a grouping of left-leaning, socially conscious novelists and playwrights from the 1950s that included Kingsley Amis, Alan Sillitoe, and John Osborne.
 ANSWER: **angry young men**
 [10] The term was first used in a promotional campaign for Osborne's *Look Back in Anger*, which is about this working-class everyman who achieves reconciliation with his wife Alison despite his abusive behavior toward her.
 ANSWER: **Jimmy Porter** [either is fine]
 [10] This angry young man wrote about the nurse Evelyn Mallaton, who screws Dick Corvey, in *The Vodi*. He wrote about former POW Joe Lampton in his first novel, *Room at the Top*.
 ANSWER: John [Gerard] **Braine**
9. This conflict ended following the capture of the Pescadores Islands. For 10 points each:
 [10] Name this conflict in which one side's fleet was destroyed at the Yalu River. One participant in it deployed the modernized Beiyang Army, but was defeated anyway.
 ANSWER: First **Sino-Japanese** War [or War of **Jiawu**; or **Japan-Qing** War; or **Chinese-Japanese** War; or **China-Japan** War]
 [10] The First Sino-Japanese War was ended by this treaty, which required China to recognize Korean Independence, give Japan the Liaodong Peninsula, and pay reparations.
 ANSWER: Treaty of **Shimonoseki** [or Treaty of **Magnuan**]
 [10] One of the immediate causes of the First Sino-Japanese War was the assassination of Korean revolutionary Kim Ok-gyun, who participated in this failed coup attempt against the Choson Dynasty in 1884.
 ANSWER: **Gapsin** coup [or **Kapsin** incident]

10. One philosopher of this surname advanced the “basic argument” that free will is impossible in his *Freedom and Belief*. For 10 points each:
 [10] Give this surname of a father-son duo of British philosophers, one named Galen and one named P.F., the latter of whom penned “In Defense of a Dogma,” “On Referring,” and “Freedom and Resentment.”
 ANSWER: **Strawson** [or the **Strawsons**]
 [10] P.F. Strawson’s “On Referring” is a response to this Brit’s “On Denoting,” in which this author of *Principia Mathematica* and “Why I am Not a Christian” put forward, quite wrongly, the “definite descriptor” theory of naming.
 ANSWER: Bertrand [Arthur William] **Russell**
 [10] Russell’s “On Denoting” points out that both the sentences “The present [holder of this title] is bald” and “The present [holder of this title] is not bald” are not true, because there is no current holder of this title.
 ANSWER: **King of France** [or **Roi du France**; accept “The present **King of France** is bald/not bald”]
11. Normal coordinates are used to simplify analysis of this type of system. For 10 points each:
 [10] Name this system that consists of multiple connected harmonic oscillators.
 ANSWER: **coupled** [harmonic] oscillators
 [10] Double pendulums, a type of coupled oscillator, can exemplify this phenomenon, in which a small change in initial conditions causes a large change in the final state.
 ANSWER: **chaos** [accept **chaotic** systems]
 [10] A characteristic feature of chaotic processes, that they stretch and fold trajectories in phase space, is exemplified by the “cat map” of this mathematician. It is an area-preserving map of the two-dimensional torus.
 ANSWER: Vladimir [Igorovich] **Arnold**
12. One work located at this institution depicts several mortarboard-wearing fetus skeletons in glass jars which represent the birth of useless knowledge. For 10 points each:
 [10] Name this institution that is home to *Gods of the Modern World*, also the home of the complementary *Migration and Modern Migration of the Spirit*. Another set of works here depicts ancient and modern human sacrifice.
 ANSWER: **Dartmouth** College [or **Baker** memorial library]
 [10] *The Epic of American Civilization* series was made by this Mexican muralist. He also made a series of murals for the Mexican National Preparatory School and is neither David Alfaro Siqueiros nor Diego Rivera.
 ANSWER: Jose [Clemente] **Orozco**
 [10] This work by David Alfaro Siqueiros whose background is composed of piles of rubble and a lone tree shows a baby wearing a red toga emerge from the mouth of another giant baby head.
 ANSWER: **Echo of a Scream** [or **Echo of the Scream**; accept **Eco de un Grito** though I don’t know if it’s ever called that]
13. Ellen Churchill Semple was a key early American proponent of this idea, which she poached from noted coiner of the term “lebensraum” Friedrich Ratzel. For 10 points each:
 [10] Name this view that the climate or geography of a place influences the mindset of those who live there.
 ANSWER: **environmental determinism** [prompt on partial answers; accept with word forms of either word]
 [10] James Morris Blaut criticized this person for reviving environmental determinism through loose usage of the words “Eurasia” and “innovative” in his *Guns, Germs, and Steel*.
 ANSWER: Jared [Mason] **Diamond**
 [10] Ernest Mandel formulated the idea of “parametric determinism,” in which historical events have several possibilities within given parameters, as one interpretation of this Marxist approach to the study of the past, which traces mankind as it moves through various modes of production to address life’s necessities.
 ANSWER: **historical materialism** [prompt on partial answers; accept with word forms of either word]
14. These battles were a major defeat for the Kingdom of Prussia. For 10 points each:
 [10] Name these twin 1806 battles. Napoleon Bonaparte and Jean Lannes commanded the victorious forces at one, while Louis-Nicolas Davout won the other despite receiving no assistance from Jean Bernadotte.
 ANSWER: Battle of **Jena-Auerstadt** [accept in either order; prompt on partial answer]
 [10] At the Battle of Jena-Auerstadt, Prussia was fighting for this coalition, which was ultimately dissolved following the defeat of Russia at the Battle of Friedland.
 ANSWER: **Fourth** Coalition [accept War of the **Fourth** Coalition]
 [10] This inconclusive battle in the War of the Fourth Coalition was confused by falling snow. Napoleon was saved from a near defeat by cavalry charges led by Joachim Murat.
 ANSWER: Battle of **Eylau** [or Battle of **Preussisch-Eylau**]

15. A chorus and dance of Scythians at the end of the first act is this opera's only *divertissement*, and at one point, the piccolos double the violins at an augmented fourth to depict a storm. For 10 points each:
- [10] Name this opera that quotes Bach's Partita No. 1 in the aria "Je t'implore et je tremble." Its title character sings "You have no more kings / And I have no more kin" after the supposed death of her brother.
ANSWER: **Iphigénie en Tauride** [or **Iphigenia in Tauris**]
- [10] The chorus "Trionfi amore" begins this first "reform opera" by the composer of *Iphigénie en Tauride*, in which a title character sings "Che farò senza" about the other title character after causing her death by looking backward.
ANSWER: **Orfeo ed Euridice** [or **Orféé et Eurydice**, or **Orpheus and Eurydice**]
- [10] This composer of *Orfeo ed Euridice* reused music from his earlier opera *Semiramis* in *Iphigénie en Tauride*, and promoted simple, flowing arias and accompanied recitative in a manifesto published as a preface to his *Alceste*.
ANSWER: Christoph Willibald **Gluck**
16. Kathleen Drew Baker first elucidated the biphasic lifecycle of one of these organisms, which allowed for their commercial cultivation. For 10 points each:
- [10] Name these organisms that have characteristic "pit-plug" connections between cells. They get their characteristic color because of their phyco-bili-proteins, and the "coralline" versions of these organisms are the keystone species of many coral reefs.
ANSWER: **red algae** [or **rhodophyta**; prompt on **algae** but do not accept algae of any other color]
- [10] Red algae use a highly branched "floridian" version of this storage polysaccharide. Amylases cleave the alpha 1-to-4 linkages in this polysaccharide, which is the storage polysaccharide in most plants.
ANSWER: **starch**
- [10] Red algae like *Porphyra* follow a biphasic life cycle that is described by this phrase. This term refers to life cycles with morphologically distinct sporophyte and gametophyte structures.
ANSWER: **alternation of generations**
17. Identify these people who share a common surname, for 10 points each.
- [10] This man's namesake expedition explored the southern portion of the Louisiana Purchase, and he lends his name to a mountain in the Front Range of the Rockies.
ANSWER: Zebulon **Pike**
- [10] This Mason and author of *The Arkansas Form Book* is better known for his initial victory at the Battle of Pea Ridge as a brigadier general for the Confederacy.
ANSWER: **Albert Pike** [prompt on **Pike**]
- [10] This character was portrayed by Jeffrey Hunter in "The Cage," Sean Kenney in "The Menagerie," and Bruce Greenwood in the J.J. Abrams remake. He is known for being James T. Kirk's predecessor as captain of the *Enterprise*.
ANSWER: **Christopher Pike** [prompt on **Pike**]
18. A person, let's call him Bruce, demands the following responses from you regarding tariff law, for 10 points each.
- [10] You will incur a ten-point benefit if you name this 1897 tariff that significantly raised rates after they were reduced by the Wilson-Gorman Tariff several years earlier.
ANSWER: **Dingley** Tariff
- [10] I require you to name this agreement, which banned non-tariff barriers, and under which various "rounds," such as those named for Tokyo and Uruguay, were conducted. In 1995, it was superseded by the creation of the WTO
ANSWER: **GATT** [or **General Agreement on Tariffs and Trade**]
- [10] It would please me to hear you name this tariff, passed over the protests of 1,028 economists in 1930, which worsened the Great Depression.
ANSWER: **Smoot-Hawley** tariff [accept names in either order]
19. An "andantino espressivo" Crimean theme interrupts the galloping 12/16 main theme, based on a Circassian dance, in this ternary-form piece capped by a "presto furioso" coda. For 10 points each:
- [10] Name this virtuosic piece for solo piano in D-flat major, sometimes performed in orchestrations by Sergei Lyapunov or Alfredo Casella.
ANSWER: **Islamey**: *An Oriental Fantasy*
- [10] This composer of *Bolero* attempted to outdo Mily Balakirev's *Islamey* with his balls-hard *Gaspard de la Nuit*.
ANSWER: [Joseph-] Maurice **Ravel**
- [10] *Gaspard de la Nuit* contains this middle movement that repeats a B-flat octave ostinato in imitation of a tolling bell over the desert scene of a hanged man's corpse on the title object.
ANSWER: "Le **Gibbet**" [or "The **Gibbet**"]

20. Name the following about the *Ninety-Five Theses*, for 10 points each.
 [10] This German monk nailed the *Ninety-Five Theses* to the cathedral door in Wittenburg to protest the sale of indulgences.
 ANSWER: Martin **Luther**
 [10] After penning the *Ninety-Five Theses*, Luther wrote *A Sermon on Indulgences and this concept*, one of the five “solas” of the reformation, which signifies the blessings that God gives regardless of merit.
 ANSWER: **grace** [or **gratia**]
 [10] This German reformer penned 151 theses a year before Luther, who joined this man in the Leipzig Debate against Johann Eck in 1519 and sheltered this man during the Peasants’ War.
 ANSWER: Andreas [Rudolph Bodenstein von] **Karlstadt** [or Andreas **Karlostadt**]
21. The chambermaid Lydia finds her way into the bed of this character, who pursues a romantic friendship with Marcenda, who is receiving treatment for her paralyzed arm. For 10 points each:
 [10] Name this doctor who returns on a steamship from Brazil, spends his days reading newspapers and Herbert Quain’s novel *The God of the Labyrinth*, and calmly walks to a graveyard soon after a mutiny aboard three battleships.
 ANSWER: **Ricardo Reis** [accept either; accept *The Year of the Death of Ricardo Reis*; accept *O Ano da Morte de Ricardo Reis*; prompt on Fernando António Nogueira de Seabra **Pessoa**]
 [10] *The Year of the Death of Ricardo Reis* was written by this Portuguese author who also wrote a novel in which only the doctor’s wife is spared from the contagion of *Blindness*.
 ANSWER: Jose [de Sousa] **Saramago**
 [10] In this novel by Saramago, the Maphia devise a plan whereby people are tossed outside a country’s borders and die instantly. The title phenomenon is personified as a woman who falls in love with a cellist, ending a brief respite from immortality.
 ANSWER: **Death with Interruptions** [or **Death at Intervals**; or *As intermitencias da Morte*]

Extra bonuses

22. This country’s forces notably fought for the Allies at the Third Battle of Ypres and at Mametz Wood during World War I. For 10 points each:
 [10] Name this principality that was also home to Prime Minister David Lloyd George.
 ANSWER: **Wales**
 [10] This political party in Wales, whose English name is “Party of Wales,” advocates for the creation of an independent Wales, and is currently headed by Leanne Wood.
 ANSWER: **Plaid** Cymru
 [10] Sir Edmund Hilary prepared for his ascent of Mt. Everest on this highest mountain in Wales, which Wordsworth described scaling in *The Prelude*.
 ANSWER: **Snowdon**
23. This play was the major literary inspiration for *The Comedy of Errors*. For 10 points each:
 [10] Name this play in which the twin sons of Moschus—Sosiscles and the title character—are separated when one is abducted by a businessman Epidamnus, but are reunited at the end.
 ANSWER: **Menaechmi** [or *The Brothers Menaechmus*; or *The Two Menaechmuses*]
 [10] *Menaechmi* was written by this Roman playwright who described a braggart soldier in *Miles Gloriosus* and wrote *The Pot of Gold*.
 ANSWER: Titus Maccius **Plautus**
 [10] In *Menaechmi*, Sosicles goes with Peniculus to give Sosicles’ wife’s mantle to this prostitute. Confusion ensues when Sosicles’ twin Menaechmus arrives in town and retrieves the mantle from this woman.
 ANSWER: **Erotium**