

STIMPY 2015: we barely wrote the tournament, so there was no time to write a subtitle

Packet by Columbia A and WKU A

Edited by Chris Manners, Jordan Brownstein, Dan Puma, Brian McPeak, Jacob Reed, Sohan Vartak, Grace Liu, Ophir Lifshitz

Tossups

1. A village in this country hosted the 1989 Pan-European Picnic. In this country, Edith Bone was indefinitely detained by the AVH, a secret police force used by a dictator who banned its Smallholders Party. The economy of this non-Bulgarian country was reformed by the New Economic Mechanism. The phrase “those not against us are with us” was coined by a man who turned this country into the “happiest barrack” with his (\*) Goulash Communism. The boots of a torn-down statue became a symbol of an event in this country. This country’s water-polo team clashed with the USSR’s in the “Blood in the Water Match.” János Kádár ruled this country after luring his predecessor out of the Yugoslav embassy. For 10 points, name this country where Imre Nagy led a 1956 uprising against the Soviets in Budapest.

ANSWER: Hungary

2. A long-tailed probability distribution named for this man is a complex exponential integral with the sum of a linear and a logarithmic term in the exponent. With Eberhard Hopf, he formulated a theory of turbulence that predicted the emergence of more Fourier modes with increasing flow velocity. The interaction of a space charge wave with particles in a plasma that have velocity close to the wave’s phase velocity results in a (\*) damping effect named for him. In quantum field theory, the momentum scale at which the coupling constant diverges is called his pole, and the quantization of cyclotron orbits creates his namesake energy levels. He formulated a phenomenological model of type-I superconductors with Vitaly Ginzburg. For 10 points, identify this Soviet physicist who co-wrote the *Course of Theoretical Physics* with his student Evgeny Lifshitz.

ANSWER: Lev Landau

3. In the book of Judges, Gideon heard a description of a dream in which this item rolled into the camp of Midian and toppled a tent. Before she is raped in 2 Samuel, Tamar brings Ammon this item. Prior to the siege of Jerusalem, this item was to be prepared using cow dung in place of human excrement. The use of this item caused two disciples en route to Emmaus to recognize Jesus. In Exodus, the appearance of evening quail and (\*) dew preceded the appearance of this substance. Jesus was tempted by the devil to turn rocks into this substance, while five units of this substance were used along with two fish to feed a crowd of five thousand people. For 10 points, name this substance that accompanied wine in the Last Supper.

ANSWER: bread [or lechem; accept barley bread; accept unleavened bread; accept manna before read]

Commented [1]: fix later

4. In a poem by an author with this surname, the speaker tells his daughter “darling I cannot linger here / in lather like a polar bear.” An author with this surname described leading a man wearing a sword-hilt through a maze in a poem that repeatedly mentions “daffodils and squills” blowing in the wind. A poem by an author with this surname depicts a man with “angry wrenlike vigilance” and ends “a (\*) savage servility slides by on grease.” One of that author’s speaker says “I myself am hell” after hearing “a car radio” bleat “Love, Oh careless love.” A poet with this surname wrote a poem about an animal who “jabs her wedge head in a cup of sour cream” and “does not scare.” For 10 points, give this surname of the author of “Patterns,” Amy, and the author of “Skunk Hour,” Robert, as well as their ancestor, the author of *A Fable for Critics*.

ANSWER: Lowell [or Robert Lowell IV; or Amy Lowell; or James Russell Lowell]

5. A hunchbacked old man gave this figure a bird costume so that he could fly to a village ruled by an eight-eyed-bat. After euphemistically asking a woman “give me a drink from your gourd,” this figure and his father helped lift up the sky. This person became jealous when his brother-in-law made a basket similar to his

while on a hunting trip and turned him into a dog. Because he was born prematurely, this figure was bound to a lock of his mother's hair and cast into the (\*) ocean. This person used a stone axe to decapitate a giant eel, and once slowed the sun with a lasso made from his sister Hina's hair. He also used fishhook fashioned from a jawbone to pull islands out of sea. For 10 points, name this trickster from Polynesian myth.

ANSWER: Maui

6. In a novel by this author, the main character buys a bag of mineral specimens from a woman at the Pension Dressler who eventually leaves with her German husband in a collapsible canoe. He wrote about a man who plays the card game "animal snap" with his son, who is killed in a fox hunting accident at Hetton Abbey. A character created by this author eventually becomes a porter at a Tunisian monastery and has a (\*) teddy bear named Aloysius. A novel of his follows a man who writes the "Lush Places" column for *The Daily Beast* and is set in Ishmaelia. One of this author's protagonists visits the Amazonian Jungle, where he is forced to read Dickens novels to Mr. Todd. A novel by this author features the alcoholic Sebastian Flyte, who befriends the painter Charles Ryder. For 10 points, name this author of *Scoop*, *Handful of Dust*, and *Brideshead Revisited*.

ANSWER: Evelyn Waugh [or Arthur Evelyn St. John Waugh]

7. These things sometimes contain small, short features called zibars. Gilgai patterns often form on playas in these things. They often produce fields of yardangs. These things often produce calcrete, gypcrete, or silcrete. The creation of these things often produces striped vegetation patterns called "tiger bush." The history of these things can be studied by examining (\*) ventifacts. These things have thick duricrusts. These regions are often classified as xeric and are the most common terrestrial biomes. The creation of these areas can be slowed by digging contour trenches, fixing seifs and barchans, or planting "shelterbelts" of plants. Lake Chad has shrunk drastically due to the spread of these areas. For 10 points, name these arid regions exemplified by the Sahara.

ANSWER: deserts [accept badlands; accept gullies; prompt on xeric biomes or shrublands]

8. Fauré's Opus 24 is an *Elegy* featuring this instrument. Schumann wrote *Five Pieces in Folk Style* for this instrument and piano. Saint-Saëns's first concerto for this instrument is in A minor and in one movement. This instrument plays the opening theme of the first movement of Dvorak's piano quintet and Mendelssohn's first piano trio. Late in his life, (\*) Schumann wrote a one-movement concerto for this non-piano instrument in A minor. This instrument is the soloist in Bloch's *Schelomo*, Bruch's *Kol Nidrei*, and Strauss's *Don Quixote*. This is the lower instrument featured in Brahms's *Double Concerto*, and Elgar's last major work was an E minor concerto for this instrument. Dvorak wrote a B minor concerto for it. For 10 points, name this low string instrument played by Mstislav Rostropovich and Yo-Yo Ma.

ANSWER: violoncello

9. A group of this ethnicity was routed at the Battle of Eccles Hill. The "Fighting 69th" regiment was made up of soldiers of this ethnicity, and female servants of this group were often called "biddies." A group of people of this ethnicity called themselves the Roach Guards and used a dead rabbit on a spike as their emblem. A comment made by Reverend Samuel Burchard led many people of this ethnicity to (\*) vote against James G. Blaine. A battalion of people of this ethnicity fought against the US at the Battle of Cerro Gordo. Many people of this ethnicity came to the US in "coffin ships." It is commonly believed that employers used signs stating that no people of this ethnicity "need apply." For 10 points, name this ethnic group of the Kennedy family and other immigrants from the Emerald Isle.

ANSWER: Irish-Americans [or people from Ireland]

10. This book concludes with a metaphor stating that its subjects are to be "merchants of morality." The introduction to this book features an extract from a novel in which the tourist Preedy visits a Spanish beach and attempts to enter the Mediterranean Sea in a way that makes him look like a local. This book posits that participants work together to form a unified definition of a situation, which it calls a "working consensus."

**This book contrasts the terms “gives” and “gives off” as two ways of conveying information in its initial discussion of (\*) impression management. This book refers to the fixed part of a person’s performance as a “front” and contrasts “front stage” and “back stage” behaviors. For 10 points, name this book that applies the “dramaturgical” approach to human social interactions written by Erving Goffman.**

ANSWER: The *Presentation of Self in Everyday Life*

**11. A depiction of this figure in the Sassetti Chapel stands on a pedestal reading “saluti patriae et Christianae gloriae.” Maffeo Barberini sponsored the creation of a depiction of this figure that unusually features a harp at his feet and bites its lip as it twists to the right away from the viewer. Verrocchio’s depiction of this figure rests his left hand on his hip and has (\*) flowers covering his nipples. Another depiction of this figure in the Bargello rests on a sword and was the first freestanding bronze statue made during the Renaissance. The Galleria dell’Accademia is home to an upright depiction of this figure that holds a slingshot over its shoulder. For 10 points, name this Biblical figure depicted in statues by Donatello and Michelangelo, in which he stands above the head of the slain Goliath.**

ANSWER: David

**12. A character in this story cannot recall whether her husband works for the Crown Department or the Provincial Council and later absentmindedly drops her lorgnette in the ocean while watching a steamboat come in. The title character of this story is first spotted by a character sitting in Verney’s Pavilion who considers women to be “the lower race.” A hotel valet in this story mispronounces the name “Von Diderits” after being asked where the title character’s house is. The title character of this story returns (\*) home after receiving a letter from her husband about something wrong with his eyes and reunites with her lover at a performance of “The Geisha.” In this story, Dmitri Gurov has an affair with Anna Sergeyevna while on vacation in Yalta. For 10 points, name this Anton Chekhov short story about an attractive woman who owns a pet pomeranian.**

ANSWER: “The Lady with the Little Dog” [accept “The Lady with the Lapdog,” “The Lady with the Pet Dog,” or “The Lady with the Toy Dog”; or “Dama s sobachkoy”]

**13. Hyaluronan is unique among GAGs in that it doesn’t contain an ion with this element. Incorporation of this element into glycosaminoglycans is accomplished in the Golgi apparatus by PAPS. Active sites of molybdenum containing nitrogenases have FeMoco, whose structure includes cubes containing this non-metal. Rieske proteins contain clusters with two atoms of this element bound to two of iron. This element is replaced by (\*) selenium in one amino acid. Phosphorus and this element were used as labels in the Hershey–Chase experiment. The start codon codes for an amino acid with this element in its side chain, and a type of bond named for this element has two thiol groups. For 10 points, name this element found in methionine and cysteine that gives rotting eggs their bad smell.**

ANSWER: sulfur [prompt on “S”]

**14. A letter to the commons sent prior to this event mentions “Hob the Robber” and states “John the Miller has ground small, small, small.” A participant in this event was stabbed after threateningly grabbing a horse’s bridle, according to Henry Knighton’s chronicle of it. During this event, a group took advantage of a meeting at Mile End by executing John Legge and Simon Sudbury. A (\*) rhyme beginning “When Adam delved and Eve span” gained popularity during this event, which was motivated by the wage-fixing Statute of Laborers. The Mayor of London, William Walworth, killed this event’s leader at Smithfield, and the priest John Ball also participated in it. For 10 points, name this popular uprising during the reign of Richard II which was led by Wat Tyler.**

ANSWER: Peasants’ Revolt of 1381 [or Wat Tyler’s Rebellion; do not accept “Peasant’s War”]

**15. The preface to this book distinguishes between two “dispensations of knowledge,” which its author dubs the “Anticipation of Mind” and the “Interpretation of Nature.” This book includes a “Table of Essence and**

**Presence” in its author’s description of the nature of heat. A part of this work classifies fallacies that arise from worlds created in an “unreal and scenic fashion” as the Idols of the (\*) Theater, which it lists alongside the Idols of the Tribe, Cave, and Marketplace. This book, which is composed of over 180 aphorisms, was to be published in an unfinished work called the *Instauratio Magna*. This book posits its author’s method of inductive reasoning intended to replace the Aristotelian method. For 10 points, name this magnum opus of the philosopher Francis Bacon.**

ANSWER: Novum Organum *Scientiarum* [or The New Instrument of Science]

**16. The rate of this property is related to the surface area, diffusion coefficient, and diffusion layer length in the Noyes–Whitney equation. The extent to which this process will occur with polymers can be estimated by a parameter equal to the square root of the cohesive energy density. Its energy is proportional to one minus one over the relative permittivity when modelled as the energy required to bring an ion from infinity into a continuous dielectric in the (\*) Born equation. Surrounding molecules orient themselves to form a “shell” in this process. A special case of the equilibrium constant, symbolized  $K_{sp}$  (“k-sub-s-p”), represents the ability of compounds to undergo this process, and that value is very low for silver chloride. For 10 points, name this process in which a solute dissociates and forms bonds with a solvent.**

ANSWER: dissolution [or word forms like dissolving; accept solvation or word forms; anti-prompt on “hydration”]

**17. A player from this team was mocked in a Tweet which included an image of two trash cans resting on one another, which it claimed was his sex tape. In 2014, this team sent its former first round draft pick from 2005 to the 76ers in exchange for Lavoy Allen and Evan Turner. This team’s starting small forward has missed most of the 2014–2015 season after breaking his (\*) leg during an intrasquad scrimmage for Team USA. This team was eliminated by the Miami Heat in the 2014 Eastern Conference Finals after eliminating the Washington Wizards. Larry Bird is the current General Manager for this team, whose stars include Paul George, George Hill, and the oft-ineffective Roy Hibbert. For 10 points, name this NBA franchise which plays its home games at Banker’s Life Fieldhouse in Indianapolis.**

ANSWER: Indiana Pacers [accept either underlined part]

**18. This musical begins and ends with one character singing, “I wish.” One character in this musical implores her adopted daughter to “Stay with me / The world is dark and wild. / Stay a child while you can be a child.” After cheating on her husband during the song “Any Moment,” one character in this musical is crushed by a foot. Another character in this musical sells his cow Milky White for a few (\*) beans. That character, Jack, feeds Milky White golden cornsilk to fulfill a prophecy about “hair as yellow as corn.” At the end of this musical, Cinderella breaks up with the Prince over his infidelity and decides to help Little Red and the Baker instead. For 10 points, name this musical by Stephen Sondheim, in which various fairy-tale characters like the Witch venture into the title location.**

ANSWER: Into the Woods

**19. A series of photographs of a revolutionary in this country show him receiving last rites in a pink shirt and then dead in front of an erupting volcano. In this nation, The Civic Guard crushed a peasant rebellion led by Agustin Farabundo Marti called La Matanza. During another conflict in this country, The White Warriors Union death squad, founded by a man known as (\*) “Blowtorch Bob,” killed Jesuit Rutilio Grande. During that civil war in this country, the ARENA Party led by Roberto D’Aubuisson faced off against the FMLN, and Archbishop Oscar Romero was assassinated. For 10 points, name this Central American nation that also fought the Soccer War against neighbor Honduras.**

ANSWER: El Salvador

20. A play by this man includes a scene in which a magistrate confuses a herald's erection for a hidden lance. An argument in another play by this man mentions a student hypothetically having a radish shoved up his ass and ends with one character addressing the audience as "wide-assed." Several characters in a play by this man swear an oath using a skin of Thasian wine instead of sacrificing a sheep on top of a shield. The professors (\*) Right Logic and Wrong Logic instruct a character in one of this man's plays, which ends with a crowd of slaves burning down The Thinkery. The title character of a play by this man convinces Athenian women to withhold sex from their husbands in an attempt to end the Peloponnesian War. For 10 points, name this master of Old Comedy and author of *The Clouds* and *Lysistrata*.

ANSWER: Aristophanes

## Bonuses

1. Since no one understands gravity at a fundamental level, there is a plethora of higher-dimensional theories competing to take the prize. Answer some questions about a few of them. For 10 points each:

[10] Both the DGP and the Randall–Sundrum models imagine our universe as a brane embedded in a spacetime of this many dimensions.

ANSWER: five [accept four plus one]

[10] In the Randall–Sundrum model, the background space is of this type, a Lorentzian analogue of hyperbolic space. It is a maximally symmetric vacuum solution of the Einstein field equations with negative cosmological constant.

ANSWER: anti-de Sitter or AdS space

[10] This theory predicts 26 spacetime dimensions in its bosonic version, and naturally incorporates quantum gravity. It starts from the assumption that elementary particles are not points, but one-dimensional objects, and its different types are believed to be special cases of M-theory.

ANSWER: string theory

2. This man's *Lipstick (Ascending) on Caterpillar Tracks* is located at Yale University. For 10 points each:

[10] Name this artist, who collaborated with his wife Coosje van Bruggen to create *Dropped Cone*, a huge vanilla scoop on top of a Cologne shopping center.

ANSWER: Claes Oldenburg

[10] This painter created *Four Ice Cream Cones* in 1964 and is known for painting sequences of cupcakes, lipstick, gumball machines, watermelons, and other everyday objects.

ANSWER: Wayne Thiebaud

[10] Both Oldenburg and Thiebaud are often associated with this art movement, whose members included images of mass culture in their works. Andy Warhol was also a member of this movement.

ANSWER: pop art

3. The Root and Branch petition attempted to modify this text. For 10 points each:

[10] Name this text that was actually reformed by Thomas Cranmer, and contains instructions for how to do things like Baptism and celebrating the Eucharist.

ANSWER: The Book of Common Prayer

[10] *The Book of Common Prayer* is widely used in this Christian denomination, which is sometimes known as the Church of England.

ANSWER: Anglican Church [or Anglicanism]

[10] The Great Rejection, in which thousands of reverends were thrown out of the Anglican Church, occurred after this act was passed by Parliament. This act made the use of *The Book of Common Prayer* required during services.

ANSWER: Act of Uniformity

4. After another character loses his virginity to Candy Starr, this character drives him to suicide by claiming that she will tell his mother. For 10 points each:

[10] Name this sadist who also administers shock therapy to Randle McMurphy in a 1962 novel.

ANSWER: Nurse Ratched [or Big Nurse]

[10] Nurse Ratched appears in *One Flew Over the Cuckoo's Nest*, a novel by this author. His Acid Test parties were described in a book by Tom Wolfe.

ANSWER: Ken Kesey

[10] Kesey's novel *Sometimes a Great Notion* follows this family of loggers from Wakonda, Oregon. Their family motto is "Never give an inch."

ANSWER: The Stampers

5. In this country, Lenin debuted the wildly unpopular slogan “Transform the imperialist war into civil war!” at the Zimmerwald Conference. For 10 points each:

[10] Name this country where Lenin lived in exile until 1917. With the help of Fritz Platten, he left this country’s city of Zürich for Russia in a sealed train.

ANSWER: Switzerland

[10] While on the sealed train, Lenin wrote this series of instructions for the Bolshevik party. This document was published in Pravda in its namesake month.

ANSWER: April Theses

[10] With the support of Arthur Hoffman, a Swiss socialist of this surname tried to negotiate peace between Russia and Germany in 1917. Two people with this surname were part of the Gottingen Seven, which opposed King Ernest Augustus.

ANSWER: Grimm [or Robert Grimm; or Wilhelm Grimm; or Jacob Grimm]

6. Answer some questions about minimalist choreographer Yvonne Rainer. For 10 points each:

[10] Rainer helped create the Judson Dance Theater in this city’s Greenwich Village. This city’s ballet company, co-founded by George Balanchine, is currently led by Peter Martins and performs in the David H. Koch Theater in Lincoln Center.

ANSWER: New York City

[10] As part of her planned work *The Mind Is a Muscle*, Rainer incorporated continuous, quotidian movements in a 1966 work titled for this type of dance. In the 18th century, this type of dance was sandwiched between two minuets as the middle section of a certain ternary form.

ANSWER: trio [accept Trio A or minuet and trio]

[10] At one point, Yvonne Rainer studied under this choreographer. This dancer danced with a chair strapped to his back, a costume designed by Robert Rauschenberg, in his 1958 work, *Antic Meet*.

ANSWER: Merce Cunningham

7. Identify some things about nitrogen-containing heterocycles. For 10 points each:

[10] This unsaturated, highly conjugated five-member heterocycle is a component of porphyrin in heme and chlorin in chlorophyll. It can be synthesized via the Knorr, Piloty–Robinson, and Hantzsch methods.

ANSWER: pyrrole [accept azole]

[10] Furan is analogous to pyrrole but has this atom instead of nitrogen. This atom is double-bonded to carbon in a carbonyl group.

ANSWER: oxygen

[10] The Wenker synthesis forms this three-membered nitrogenous heterocycle by adding sulfuric acid to a beta amino alcohol. Angle strain in compounds containing it can hinder nitrogen inversion, resulting in two distinct invertomers.

ANSWER: aziridine [accept azacyclopropane or ethylene imine]

8. The action of this novel kicks off when the protagonist refuses to eat some snail soul served to him by his evil sister. For 10 points each:

[10] Name this novel about the royal Cosimo di Rondo, who stubbornly lives in a forest canopy. The novel is narrated by his younger brother Biagio.

ANSWER: *The Baron in the Trees* [or *Il barone rampante*]

[10] Near the end of the novel, Cosimo disappears forever after boarding one of these vehicles.

ANSWER: hot-air balloon

[10] This Italian author wrote the novels *The Baron in the Trees* and *If on a Winter’s Night a Traveler*. He also wrote about Medardo, who is split into the Good ‘Un and the Bad ‘Un in his novel *The Cloven Viscount*.

ANSWER: Italo Calvino

9. One member of this group, Fructuoso Rivera, would later perpetrate the Salsipuedes Genocide against the Charrua People. For 10 points each:

[10] Name this group whose 1825 landing led to the Battle of Sarandi and which was led by Juan Jose Arevalo and Juan Antonio Lavalleja.

ANSWER: 33 Immortals [or Treinta y tres Orientales; or Thirty-Three Easterners]

[10] The 33 Immortals fought for the independence of this nation, which broke away from Brazil with help from Argentina. This country warred with another geographically close country when it teamed up with Argentina and Brazil to take on Paraguay in the War of the Triple Alliance.

ANSWER: Uruguay

[10] From independence until the 1950s, Uruguay was dominated by this political party that fought against the *Blancos* in several Uruguayan civil wars.

ANSWER: Colorado Party [or Colored Party; or Red Party; or Colorados]

10. Answer the following about the philosophical work *Anti-Oedipus*. For 10 points each:

[10] *Anti-Oedipus* is the first volume in the work *Capitalism and Schizophrenia*, which was a collaboration between Felix Guattari and this other philosopher.

ANSWER: Gilles Deleuze

[10] Deleuze and Guattari referred to an assemblage with no underlying structure as one of these objects “without organs.” Cartesian dualism contrasts the mind with this object.

ANSWER: the body

[10] In *Anti-Oedipus*, Deleuze and Guattari conceived of this concept as a process of production. In his argument for the divided soul, Plato showed how this concept can conflict using the example of a man named Leontius who fights the urge to look at a pile of dead bodies.

ANSWER: desire

11. Hermes narrates most of a novel by this author, which concerns the assembly of the Godley family as they await their patriarch Adam’s death. For 10 points each:

[10] Name this Irish author of *The Infinities*. In this author’s novel *The Sea*, Max Morden witnesses the drowning deaths of Chloe and Myles Grace.

ANSWER: William John Banville

[10] Xenophon apparently inspired the title of this author’s *The Sea, The Sea*, which focuses on the egomaniacal Charles Arrowby. She also wrote about Jake Donaghue in the novel *Under the Net*.

ANSWER: Iris Murdoch

[10] This author’s *The Sea-Wolf* depicts the struggles of Humphrey van Weyden after he is rescued from a shipwreck by the tyrannical Wolf Larsen. This author also really liked dogs, as evidenced by his novels *The Call of the Wild* and *White Fang*.

ANSWER: John Griffith “Jack” London

12. At this meeting, Hendrick Theyanoguin allowed the trading village of Shamokin to be ceded to Pennsylvania. For 10 points each:

[10] Name this 1754 meeting. Its “Plan of Union” was proposed by Benjamin Franklin, who promoted it with his “Join, or Die” cartoon.

ANSWER: Albany Congress

[10] This Massachusetts delegate to the meeting was later the subject of a controversy over his correspondence with Thomas Whatley and was preceded in his highest position by Francis Bernard.

ANSWER: Thomas Hutchinson



[10] The aforementioned “Join, or Die” cartoon depicts a dismembered animal of this type. One of these animals appears above the caption “Don’t tread on me!” on the Gadsden flag.

ANSWER: snakes [or serpents; or any specific varieties of snake]

13. In 1911, this composer wrote a very short set of *Six Small Piano Pieces*, his Opus 19. For 10 points each:

[10] Name this leader of the Second Viennese School, who was one of the first atonal composers and developed the twelve-tone technique. His compositions include *Pierrot Lunaire* and *Transfigured Night*.

ANSWER: Arnold Schoenberg

[10] Schoenberg’s Opus 25 is a semi neo-Baroque work in this genre. Baroque works in this genre often include an allemande and a courante.

ANSWER: suites

[10] Schoenberg “broke with tonality” with a set of three piano pieces with this opus number, his first published collection of piano pieces.

ANSWER: eleven

14. There are many ways to solve a differential equation. For 10 points each:

[10] A simple equation like  $dy/dx$  equals one-half  $x$ -squared can be solved immediately by doing this operation to both sides, since this operation is the inverse of differentiation. This operation also finds the area under a given curve.

ANSWER: integration [accept word forms like “taking an integral”]

[10] This man’s identity for the Wronskian can be used to prove linear independence of solutions of some differential equations. With Ruffini, he names the statement that quintic equations cannot generally be solved with radicals.

ANSWER: Niels Henrik Abel

[10] Most of the time, it’s better to use approximations to solve differential equations. This family of methods extends Euler’s method; the most-popular one of them is fourth-order.

ANSWER: Runge-Kutta [or RK; accept Runge-Kutta 4 or RK4]

15. Pope Sixtus IV gave Ferdinand and Isabella permission to establish this organization in 1478. For 10 points each:

[10] Name this body that investigated heresy in an Iberian kingdom. Victims of this institution were the subject of public ceremonies called autos-da-fé.

ANSWER: Spanish Inquisition [prompt on “Inquisition”]

[10] The Alhambra Decree, which expelled the Jews from Spain, was advocated by this Dominican Grand Inquisitor under Ferdinand and Isabella.

ANSWER: Tomas de Torquemada

[10] This other Grand Inquisitor and Cardinal appointed by Ferdinand founded the Alcala de Henares university and sponsored a bible translation called the *Complutensian Polyglot*.

ANSWER: Francisco Jiménez de Cisneros [or Francisco Jiménez de Cisneros]

16. This work posits a U-shaped curve that describes people as having the most freedom when they are babies and when they are old. For 10 points each:

[10] Name this study of Japanese culture written during World War II by Ruth Benedict.

ANSWER: *The Chrysanthemum and the Sword*

[10] *The Chrysanthemum and the Sword* classifies Japan as this type of culture, in which social order is maintained by disgrace of an individual for their wrongdoing.

ANSWER: shame culture

[10] The study also analyzes this Japanese concept of “duty” or “obligation” that arises through social interactions with others.

ANSWER: giri

17. Over 200 people were killed in 2008 in a human stampede at Mehrangarh Fort in the city of Jodhpur, which lies in this desert. For 10 points each:

[10] Name this enormous desert in the western Indian state of Rajasthan.

ANSWER: Thar Desert

[10] Part of the Thar Desert crosses over the border into this country, which has its capital at Islamabad.

ANSWER: Pakistan

[10] Rajasthan is a hotbed for the production of this natural resource, which is found in several lakes in the Thar Desert. The Yangpu Field is a source for this resource in China, the world's leading producer of it.

ANSWER: salt

18. Answer some things about long noncoding RNA. For 10 points each:

[10] This first long non-coding RNA to be discovered causes lyonization by wrapping around the X chromosome to be inactivated.

ANSWER: Xist [or X inactive specific transcript]

[10] Another long non-coding RNA is COOLAIR, which causes histone modifications that decrease expression of Flowering Locus C. The result is this process, in which flowering plants need to be exposed to the cold for a while to be able to flower when it gets warm.

ANSWER: vernalization [accept word forms]

[10] The lncRNA HOTAIR acts as a scaffold for the binding of this material that is formed of densely packed DNA and histones.

ANSWER: chromatin

19. In the second stanza of this poem, the speaker resolves to “with a stronger faith embrace A sword, a horse, a shield.” For 10 points each:

[10] Name this 1649 poem, that ends with the speaker claiming “I could not love thee, dear, so much, Loved I not honor more.”

ANSWER: “To Lucasta, Going to the Warrens”

[10] “To Lucasta, Going to the Warrens” was written by this Cavalier poet, who wrote “Stone Walls do not a Prison make, Nor Iron bars a Cage” in “To Althea, from Prison.”

ANSWER: Richard Lovelace

[10] This other Cavalier poet included the line “’Twas I that gave thee thy renown” in the poem “Know, Celia, Since Thou Art So Proud.” Celia appears again in his best known poem, the 166-line “A Rapture.”

ANSWER: Thomas Carew [pronounced “Carey”]

20. Answer the following about the difficult task of rescuing people from the Greek underworld. For 10 points each:

[10] Heracles was unable to free this man from the rock that he was stuck to in the underworld. This husband of Hippodamia and friend of Theseus was a king of the Lapiths.

ANSWER: Pirithous

[10] This musician's attempt to rescue his dead wife Eurydice was thwarted when he looked at her ghost on the journey out of Hades.

ANSWER: Orpheus

[10] After bringing his mother Semele out of the underworld, Dionysus did this action on the grave of Prosymnus in payment for Prosymnus's help with the rescue.

ANSWER: he sodomized himself with a fig-wood phallus [or equivalents, like indicating the use of a phallus or dildo]