

ACF Regionals 2020

Packet N by Chicago B, Oxford A, Stanford A, UGA B, and William & Mary

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Tossups

1. An attempt to build these devices at Columbia University was unsuccessful because potassium gas darkened the glass. The first successful one of these devices was primarily assembled by Irnee D’Haenens (“DAH-nins”) and used a helical-shaped flash lamp. NPRO setups are an example of the “ring” type of these devices and help to avoid spatial hole burning. Inhomogeneous (“in-homo-geneous”) Doppler broadening due to differing gas molecule velocities is a common problem in some of these devices. Neodymium (“neo-DIM-ee-um”)-doped YAG crystals are a common gain medium for these devices. Because the conditions necessary for these devices can only exist in equilibrium at negative temperatures, they must be externally pumped for population inversion. For 10 points, name these sources of highly monochromatic narrow beams of coherent light.

ANSWER: **lasers** [or **light amplification by stimulated emission of radiation**]

<Physics>

2. A novel about an adherent of this religion, in which every chapter starts with the letter “B,” is titled *The Forty Rules of Love*. A book of discourses called “It Is What It Is” was collected by an adherent of this religion, who wrote a poem that states “it’s best to cut conversation short, say good-bye, and leave” if someone declines to listen to the title song. Poems that were loosely translated into English by Coleman Barks were written by an adherent of this religion who wrote the “Song of the Reed Flute.” A follower of this religion collected ninety ghazals (“guzzles”) in his *Dīvān*, which was dedicated to his teacher, Shams of Tabriz. That follower of this religion wrote the *Spiritual Couplets*. The poet Rumi was a member of, for 10 points, what mystical Islamic tradition?

ANSWER: **Sufi** Islam [or **Sufism**; accept **Mevlevi** movement; prompt on **Islam** or **Muslim** until “Islamic” is read]

<World/Other Literature>

3. A people from this island were legendarily named after another island’s invasion was repulsed by a “victorious buffalo.” A Buddhist empire on this island built the Muara Takus temples and used 9th-century canals to dominate the tin and camphor (“KAM-fer”) trades. George Cœdès (“say-DESS”) rediscovered an empire based on this island, where the Táng-era monk Yijing studied Sanskrit in the core of a “thalassocratic” (“thalasso-cratic”) kedatuan (“kuh-dah-TOO-ahn”). Zhèng Hé (“jung huh”) gave a bell to this island’s Sultan of Samudera Pasai after visiting [emphasize] *another island’s* capital of Majapahit. This island’s Melayu Kingdom near Palembang fell to the Srivijaya (“shree-VIJ-uh-yuh”) Empire. The Aceh (“AH-chay”) Sultanate on this island fought Portugal to control the Strait of Malacca. For 10 points, name this Sunda island north of Java in Indonesia.

ANSWER: **Sumatra** (The first sentence refers to the Minangkabau. The canals are from the Sriwijaya Kingdom Archaeological Park near Palembang.)

<World History>

4. In a Xhosa (“KOH-suh”) story, this animal cuts off the inkalimeva’s tail off after it keeps stealing the fat in a kraal. During a drought, this animal refuses to do a water dance. This animal steals Lizard’s magic sword, but can’t stop it from cutting, in a Gullah story from *Drums and Shadows*. This trading partner of Elephant gets killed for stealing Antelope’s food. Miss Meadows “and the gals” often socialize with this animal, which gets persimmons by making Miss Cow ram a tree. Buzzard, Wolf, and Terrapin are common victims of this animal, which outwits Fox and Bear by fleeing into a briar patch. Tales of this animal inspired Disney’s racist film *Song of the South*. This

animal often fills the role of the spider Anansi. For 10 points, Joel Chandler Harris collected tales starring what animal as the trickster “Br’er” (“brair”)?

ANSWER: **rabbits** [accept Br’er **Rabbit** or B’**Rabby** or Compair **Lapin**; accept **hares** or **coney**s or **bunnies**; accept species like African savanna **hare** or **Lepus microtis**; accept **Sungura** or **Kalulu** or **Sulwe** or **Mutlanyana** or **hlolo** or **imbina**]

<Mythology>

5. Dr. Nico Kasanda is largely responsible for introducing a playstyle for this instrument to Soukous (“soo-KOO”) music. The Tuareg Nigerien songwriter Mdou Moctar (“em-doo MOCK-tar”) primarily plays this instrument. A musician who plays this instrument released the albums *Synchro System* and *Juju Music* after being signed to Island Records during the World Music boom of the early 1980s. King Sunny Adé plays this instrument, which provides the instrumental melody to most songs by the Tuareg band Tinariwen. While leading the Band of Gypsies, a man who played this instrument improvised an explosive version of “The Star-Spangled Banner” at Woodstock. For 10 points, name this string instrument played by many African musicians influenced by Django Reinhardt and Jimi Hendrix.

ANSWER: electric **guitar** [accept acoustic **guitar**; accept bass **guitar**]

<Other Arts (Music)>

6. For disk galaxies, the relative contribution of a bulge to this quantity is termed the bulge fraction. This quantity for a galaxy is assumed to correlate with the mass of a dark matter halo when using abundance matching. This is the input of a function that includes a normalization constant “phi-star” and a power-law slope “alpha,” and is named for Schechter (“SHECK-ter”). The value “four-pi times big-G times mass times the speed of light over opacity,” called the Eddington limit, is an upper bound on this quantity. A power law relation between this quantity and velocity dispersion for an elliptical galaxy is named for Sandra Faber and Robert Jackson. Objects for which this quantity is known are called standard candles. For 10 points, the y-axis of an HR diagram is what measure of the total power emitted by a stellar object?

ANSWER: **luminosity** [or **absolute magnitude**; prompt on **magnitude** or **brightness**]

<Other Science (Astronomy)>

7. A character in this musical describes a hypothetical situation in which a banker takes his “kind, old grandma’s” life savings and spends it on “prostitutes and heroin and porn.” This musical’s protagonist claims that “seeing my name in black and white” is “like making love with you all night” before mockingly pretending to orgasm. In this musical’s opening number, a store owner tells Courtney to “take your break” before giving a dress to its protagonist as a “gift from me.” Delta Nu sorority girls sing “Omigod You Guys” at the opening of this musical, in which Paulette injures the UPS deliveryman Kyle by performing the “Bend and Snap.” Emmett falls in love with Harvard Law student Elle Woods in, for 10 points, what musical based on a 2001 film starring Reese Witherspoon?

ANSWER: **Legally Blonde: The Musical**

<Pop Culture>

8. This character gives birth to eight children with names such as Goldfinger and Chrysostomos (“CRY-so-STO-mose”) after proclaiming, “O, I so want to be a mother.” After the question “Where?” is posed, a chapter ends with a large black dot representing this male character. The brothel-mistress Bella Cohen swaps sexes with this character in a chapter written in the form of a play script. This character, who is introduced eating “with relish the inner organs of beasts and fowls,” masturbates while watching Gerty MacDowell at a fireworks show. Celebrants of a June 16th holiday named for this character retrace the route he takes through a city in the novel featuring him. Blazes Boylan carries on an affair with this man’s wife Molly. Stephen Dedalus befriends, for 10 points, what protagonist of James Joyce’s novel *Ulysses*?

ANSWER: **Leopold Bloom** [accept either name; or **Leo**; prompt on **Poldy** or **L. Boom**]

<British Literature>

9. This institution built Club Atenas for its many Cuban members. After Charles D. B. King visited this institution, he hired its architect Robert Robinson Taylor to create a copycat version sponsored by Firestone Rubber.

Agronomists from this organization helped German colonial officials develop model cotton farms in Togoland. Affiliates of this institution claimed to offer “special treatment” for subjects with “bad blood.” Although peanut butter was not invented here, George Washington Carver invented peanut products to fight soil depletion while at this institution. The U.S. government conducted an infamous experiment here that failed to treat poor black farmers with syphilis. For 10 points, name this Alabama HBCU founded by Booker T. Washington.

ANSWER: **Tuskegee** Institute [or **Tuskegee** University]

<American History>

10. Max Boisot’s I-space model divides knowledge into this many types, which is also the number of modes of knowledge conversion in a model developed by Ikujiro Nonaka. This many steps feature in a decision-making loop developed by military strategist John Boyd. Potter Stewart ruled that the constitutional amendment of this number applied to “people, not places” in his decision in *Katz v. U.S.*, which ruled on phone booth wiretapping. This is the minimum number of Supreme Court Justices needed to grant a writ of *certiorari*. The Supreme Court ruled that illegally obtained evidence is inadmissible in court because of the amendment of this number in *Mapp v. Ohio*. For 10 points, give the number of the Bill of Rights Amendment that prohibits unreasonable searches and seizures.

ANSWER: **four** [accept the **Fourth** Amendment; accept United States Court of Appeals **Fourth** Circuit] (The second sentence refers to the OODA loop.)

<Social Science (Political)>

11. The binding of this substance’s response factor to this substance’s response element triggers the transcription of many immediate early genes. Gel electrophoresis of this substance produces bands called the alpha-1 zone, the beta zone, and the gamma zone, and are used to diagnose multiple myeloma and monoclonal gammopathy of undetermined significance. A common, but ethically dubious, eukaryotic cell culture component is this substance from bovine fetuses. The most common blocking agent used in ELISA is albumin isolated from this substance in cows. This substance is separated by placing a clot activator and blood into a tube in a centrifuge and spinning. For 10 points, name this substance, which is blood without blood cells or clotting factors.

ANSWER: **serum** [accept **serum** response element or **serum** response factor; accept fetal bovine **serum**; accept bovine **serum** albumin; prompt on **FBS**; prompt on **BSA** or **albumin** by asking “what substance is this albumin found in?”; prompt on **blood** or **plasma**]

<Biology>

12. An Austro-Hungarian count who belonged to a noble house of this ethnicity received the title of *Reichsgraf* (“RYKES-graf”) for saving Emperor Franz Josef I (“the first”) from his would-be assassin. The system of “surrender and regrant (“re-grant”)” was used to undermine these people’s Brehon (“BREE-hon”) law in favor of traditional feudalism. Exiled soldiers of this ethnicity who served in European armies were termed “wild geese” after evacuating their country following the Williamite War. A “Brotherhood” of exiles of this ethnicity launched raids against Canada and called themselves the Fenians. In the “Flight of the Earls,” nobles of this ethnicity entered exile after leaving Ulster. For 10 points, name this mostly Catholic ethnicity who fled from persecution on the Emerald Isle.

ANSWER: **Irish** [or people from **Ireland**; prompt on **Gaels** or **Gaelic** by asking “from what modern-day country?”] (The noble in the first sentence is Maximilian Karl Lamoral O’Donnell von Tyrconnell.)

<Other History>

13. In *Modern Painters*, John Ruskin praised the “faded background” of this painting as the only pre-modern “faithful painting of mountain scenery.” This painting may be a commentary on the *catasto* system that was introduced in the artist’s city due to its war with Milan. On the right side of this painting, a man in a short tunic stands before a flight of steps to Capernaum. This painting is displayed to the immediate right of its artist’s depiction of an angel ushering Adam and Eve into the desert. Christ’s head serves as a vanishing point in this painting, in which he stands with the apostles between scenes of Peter kneeling by the water and Peter paying an official. The Brancacci Chapel is home to, for 10 points, what fresco by Masaccio in which a coin fetched from the mouth of a fish is used to make the title payment?

ANSWER: *The **Tribute Money***

<Painting/Sculpture>

14. Charles Fillmore’s *Teach Us to Pray* outlined the “intellectual” form of this practice, which titles D. Ostrowski’s book asking why the Eastern Church in Rus’ (“roose”) didn’t produce someone like Abelard. Citing the opening of Psalm 39, Chapter 6 of the Benedictine Rule recommends this practice, which is done annually by followers of Meher Baba. Buddhists may carry a pewter staff called a khakkhara (“KUH-kuh-ruh”) during alms-begging if they follow this practice, which titles a Philip Gröning documentary about an order that produces a green liqueur. Following the Compline prayer, some monasteries begin a “Great” form of this practice, which dominates “unprogrammed worship” in Quaker meetings until it is halted by “vocal ministry.” For 10 points, name this practice of Carthusians who take a namesake “vow.”

ANSWER: vow of **silence** [accept equivalents like **not speaking**; accept **mauna** or **muni** or **Stille** or **Schweigen** or **tishina**; accept intellectual **silence**; accept *Into Great **Silence*** or *Die große **Stille***] (The first sentence is from *Europe, Byzantium, and the ‘Intellectual Silence’ of Rus’ Culture.*)

<Religion>

15. A character tricks a woman with this surname into singing him a Yiddish song after she describes a star that “burns acid green” every June 19th. A person with this surname warns “history is about to crack wide open” after calling an ambulance for a man who had called her “Mrs. Reddy Kilowatt” before collapsing on the floor in pain. A senile dentist cries as he embraces the narrator in Disneyland in a novel that fictionalizes this family as the Isaacsons. The actress who plays Hannah Pitt also plays a woman with this surname who haunts Roy Cohn in Tony Kushner’s *Angels in America*. E. L. Doctorow’s *The Book of Daniel* was inspired by the death of a couple with this surname. Sylvia Plath’s *The Bell Jar* is set during the summer when, for 10 points, what couple was executed for espionage?

ANSWER: the **Rosenbergs** [accept Julius or Ethel **Rosenberg**; or Ethel **Greenglass**]

<American Literature>

16. D- and L-type Bjerrum (“BYAIR-um”) defects can be observed in this substance. The structure of this substance is described by the “two-in, two-out” Bernal–Fowler rules. Scientists at the University of Rochester fired a laser at this substance to produce a highly conductive, black, “superionic” form of this substance. This substance typically exists in the *I*-sub-*h* phase, although it has approximately 18 known phases. Rapid cooling of a [emphasize] *related* substance to below the glass transition temperature produces an amorphous form of this substance commonly used in cryo-EM. This solid material is less dense than its liquid counterpart, which is explained through a less compact hydrogen bond network in its solid form. For 10 points, identify this solid comprised of H₂O molecules.

ANSWER: **ice** [or **solid water** or **frozen water** or equivalents; accept **superionic ice**; prompt on **water** or **H₂O**; do not accept or prompt on “liquid water” or equivalents]

<Chemistry>

17. Joseph Goebbels and Adolf Hitler praised a 1938 opera based on this play that was composed by Werner Egk. A recurring slow melody in a piece inspired by this play contains a long E, then the ascending notes “C, E, A, B,”

followed by two grace notes down to G. The slow ascending notes “F-sharp, B, long C-sharp” are repeated throughout a section of a piece inspired by this play. A 6/8 (“six-eight”)-time section of a piece inspired by this play opens with an E major melody that descends from B down to E, and then ascends back up to B. The bassoons and low strings play a staccato sixteenth-note melody that intensifies as it is passed to different instruments, in a piece inspired by this play that depicts “Åse’s Death” and “Solveig’s Song.” For 10 points, name this play for which incidental music was composed by Edvard Grieg.

ANSWER: ***Peer Gynt***

<Classical Music>

18. The narrator of this novel is initially reluctant to eat the bean-shaped penises he’s served at a feast celebrating the castration of the village pigs. As a New Year present, a woman who is called “the old siren” throughout this novel is given a painting of her as a literal siren attracting four battleships. After the cable they built to transport tree trunks down a mountainside is destroyed, one of the main characters of this novel teaches the other how to dance on the beach. In this novel, a funeral procession turns into a mob that stones and decapitates a young widow. The narrator of this novel has his Buddha-inspired asceticism challenged by a man who calls him “boss” and seduces Madame Hortense. For 10 points, the title lignite miner educates the narrator in what novel by Nikos Kazantzakis?

ANSWER: ***Zorba the Greek*** [or ***Life and Times of Alexis Zorbas***; or ***Víos kai Politía tou Aléxē Zorbá***]

<European Literature>

19. Mike Jackson declared he “wasn’t going to start the Third World War” during this conflict after he was asked to use helicopters to block the runways at an airport. An attack on a compound in Prekaz before this war succeeded in killing Adem Jashari and 58 family members. During this conflict, incorrect coordinates supplied by the CIA led B-2 bombers to destroy a Chinese embassy in one capital. Henry Kissinger called the terms of the proposed Rambouillet (“rom-boo-YAY”) Agreement a “provocation” to begin this conflict’s Operation Allied Force. Some parents named their boys “Tonibler” (“Tony-Blair”) during this European conflict because of Tony Blair’s strong support for NATO ground intervention. For 10 points, name this conflict over the secession of an Albanian-majority region centered at Pristina from the rump state of Yugoslavia.

ANSWER: **Kosovo War** [prompt on **Yugoslav Wars**]

<European History>

20. Rebecca Gould compared this thinker and Carl Schmitt in a paper analyzing Schmitt’s use of this thinker’s idea of the “moment” in developing his own idea of “the exception.” This thinker claimed that “the exception explains the general and itself,” in a book that concludes “the poet’s life begins in conflict with all life.” That book by this thinker centers around a reading of the Book of Job and the anxieties of “the Young Man.” This thinker contrasted a process that he characterized as “when ideality and reality touch” with *anamnesis*. This author of the pseudo-novel *Repetition* described the subordination of the universal to the particular as the paradox of faith, exemplified by the story of Abraham and Isaac. For 10 points, name this proto-existentialist who wrote *Fear and Trembling*.

ANSWER: Søren Aabye **Kierkegaard**

<Philosophy>

21. The diisopropyl (“di-iso-propyl”) compound of this metal autocatalytically (“auto-catalytic-ly”) alkylates an aldehyde in the Soai reaction. A nitrile is attacked by the product of this metal and an alpha-bromo-ester in a reaction modifying one by which this metal creates two intermediate enolates, then a beta-hydroxy-ester. This metal used in the Blaise and Reformatsky reactions is found in the “gag-knuckle” and “treble-clef” protein motifs. This metal’s plus-2 cation is a cofactor for alcohol dehydrogenase and carbonic anhydrase. This organometallic compounds of this metal react in the palladium-catalyzed Fukuyama and Negishi couplings. Its mercury amalgam reduces ketones in the Clemmensen reduction. This metal forms DNA-binding “fingers.” For 10 points, name this metal combined with copper in brass.

ANSWER: **zinc** [or **Zn**; or **zinc** fingers]
<Chemistry>

Bonuses

1. Answer the following about differences between the popular Web application frameworks Django and Express, for 10 points each.

[10] Unlike Express, Django uses this term for functions that respond to an HTTP request. Django is said to follow a framework that splits the application into a model, a controller, and this type of element.

ANSWER: **views** [accept model–**view**–controller; prompt on **MVC**]

[10] Although Django is written in Python, Express applications use this programming language that prints strings with the command “console-dot-log.” It is considered a core language of the Web, along with HTML and CSS.

ANSWER: **JavaScript** [or **JS**; or **ECMAScript**; or **ES**; do not accept or prompt on “Java”]

[10] Django’s Serializer classes allow easily building APIs in this architectural style that emphasizes cacheability, statelessness, and client–server separation. In this style, HTTP verbs often manipulate resources identified by URLs.

ANSWER: **REST** [or **representational state transfer**; or **RESTful**; accept **REST** APIs or **REST** application programming interfaces]

<Other Science (Computer Science)>

2. Plato references this thing in *Cratylus*, after noting that according to another thinker, “all things pass and nothing stays.” For 10 points each:

[10] Name this metaphorical object that appears in three fragments from a pre-Socratic philosopher. This is the best-known object used in demonstrating its creator’s doctrine of flux.

ANSWER: a **river** [accept *potamis* or *potamois*]

[10] The doctrine of flux, as illustrated by a river, is a central tenet of the thought of this Greek philosopher, who claimed fire was the first principle of the universe.

ANSWER: **Heraclitus** of Ephesus

[10] The extant fragments of Heraclitus’s writings also present this notion, which states that seemingly contradictory attributes share a common essence. One fragment gives the example of a road being simultaneously an uphill and downhill route as an example of this idea.

ANSWER: the **unity of opposites** [or **unity-in-opposites**; prompt on partial answers]

<Philosophy>

3. Bread-and-milk “chuletas” disguised as pork are among the long-lost dishes created by these people found in Genie Milgrom’s upcoming cookbook *The Recipes of My 15 Grandmothers*. For 10 points each:

[10] Give this term for Jews who practiced their faith in secret, such as the Neofiti of Sicily, the Chala of Bukhara, and the Xuetes (“shoo-ET-uhs”) of Mallorca (“ma-YOR-ka”). This term most often describes Sephardic Jews in Belmonte and other parts of Iberia during the Inquisition.

ANSWER: **crypto-Jews** [or **Crypto-Judaism** or **Criptojudaísmo** or **cripto-judíos**; accept **marranos**; prompt on **conversos** or **cristãos-novos** or **cristianos nuevos**; prompt on **anusim** or **anus** or **anusah**]

[10] The Dönme crypto-Jews of Thessaloniki followed Sabbatai Zevi (“SHAH-beh-tye ts’VEE”), who claimed to be this redeeming figure. Judah Leib Prossnitz, David Alroy, and Jacob Frank all claimed to be this savior, whom Jews do [emphasize] *not* believe is Jesus.

ANSWER: the Jewish **messiah** [or **māšīah**; or **mashiach**; or **khristós**; accept the **Messianic** Era/Age]

[10] Both Sabbatai Zevi and the other messiah claimant Moses of Crete came from this ancient Yevanic-speaking Jewish community centered in Greece. Though by 1509 Sephardim likely eclipsed them in Thessaloniki, they maintained a synagogue in Ioannina (“yo-AH-nee-nah”).

ANSWER: **Romaniote** Jews [or **Romaniotes**; do not accept or prompt on “Roman Jews”]

<Religion>

4. At the end of a play, three characters of this profession present a “bob of cherries,” a bird, and a tennis ball. For 10 points each:

[10] Name this profession of Coll, Gib, and Daw, who thwart the thief Mak and his wife Gill in an anonymous medieval play written in a nine-line stanza form.

ANSWER: **shepherds** [accept *The Second Shepherd's Play*]

[10] *The Second Shepherd's Play*, like other mystery plays in the HM1 manuscript, are attributed to a “master” named for this town. Dr. Primrose’s family loses and regains their fortune in a 1766 novel titled for this town.

ANSWER: **Wakefield** [accept *The Vicar of Wakefield* by Oliver Goldsmith]

[10] The complaints about taxation in *The Second Shepherd's Play* resemble those in a medieval poem that asks God to “speed” this object. Piers uses this farming implement in a Middle English poem by William Langland.

ANSWER: the **plow** [accept *Piers Plowman* or “God Spede the Plough”]

<British Literature>

5. At the confederal level, the holder of this position in Holland received the title of Captain-General of the army and Admiral-General of the navy. For 10 points each:

[10] Name these governors of provinces including Friesland (“FREEZ-lont”) and Utrecht. Orangists supported hereditary succession for this position, which they finally succeeded in amalgamating into a general form across all provinces in 1747.

ANSWER: **stadtholder** [or **stadtholder**-general; or General **Stadtholder**; or *stadhouder*; or *erfstadhouder*; or *stadhouder-generaal*]

[10] Princes like William of Orange and Maurice held many but not all of the stadtholderships in the Seven United Provinces of this country, where they competed for power with Republicans who supported the States-General.

ANSWER: **Netherlands** [or The United Provinces of the **Netherlands**; or the **Dutch Republic**]

[10] During the two stadtholder-less periods, this leading civil servant of the province of Holland led the Dutch Republic. The republican Johan de Witt masterminded the Raid on the Medway while serving in this position.

ANSWER: **Grand Pensionary** of Holland [or *raadspensionaris*]

<European History>

6. A charge-coupled device is used as a camera in the “imaging” form of this technique. For 10 points each:

[10] Name this technique, which involves parametrizing a ratio symbolized “rho” in terms of an amplitude ratio “psi” and a phase difference “delta.”

ANSWER: **ellipsometry**

[10] Ellipsometry is commonly used to estimate the size of these materials, which can be formed via chemical vapor deposition. Examples of these materials include optical coatings and the frost on a window.

ANSWER: **thin films** [prompt on films]

[10] Ellipsometers measure a change in this property for incident light as it interacts with the material of interest. This property for a wave refers to the direction of its electric field oscillation relative to the wave’s propagation.

ANSWER: **polarization**

<Physics>

7. This director followed the troubled relationship of Chris and Gitti as they vacation in Sardinia in her 2009 film *Everyone Else*. For 10 points each:

[10] Name this contemporary German director who explored the relationship between a workaholic woman and her prank-loving father in her 2016 critical darling *Toni Erdmann*.

ANSWER: Maren **Ade** (“AH-duh”)

[10] *Toni Erdmann* takes place in Germany and this Eastern European country. Directors from this country include Christian Mungiu, whose abortion drama *4 Months, 3 Weeks, and 2 Days* is set during the presidency of Nicolae Ceaușescu (“chow-SHESS-koo”).

ANSWER: **Romania**

[10] Another German director who focused on the complexities of family life was this director of *Ali: Fear Eats the Soul* and *The Marriage of Maria Braun*. He almost shares his name with an actor who played a sex addict in Steve McQueen's film *Shame*.

ANSWER: Rainer Werner **Fassbinder** ("FOSS-bin-der") [accept Michael **Fassbender**]

<Other Arts (Film)>

8. In the 18th century, Jean-Baptiste Queau de Quincy ("ko duh can-SEE") allowed many *corsairs* to hang out in this modern-day country, whose nascent cinnamon and *patchouli* oil industries failed to compete with its extensive *copra* plantations. For 10 points each:

[10] Name this tiny African country to which the Sultan of Perak and Ashanti King Prempeh I ("the first") were exiled. *Ladob* pudding and shark chutney are dishes from this country, known for its high Human Development Index and Aldabra giant tortoises.

ANSWER: **Seychelles** ("say-SHELLS") [or the **Seychelles**; or Republic of **Seychelles**]

[10] The Vallée de Mai ("vah-YAY duh MAY") in Seychelles is full of these endemic palms, whose giant buttocks-like fruits often washed up in the Maldives, inspiring legends that they grew underwater. "Chinese" Gordon claimed the Seychelles were Eden based on these racy fruits.

ANSWER: **coco de mer** [accept **sea coconut** or **double coconut** or **love nut** or **coco fesse**; prompt on **coconuts** or **nuts** or **cocos**; accept **Lodoicea maldivica**; prompt on **borassoid** palmas or other generic answers]

[10] The universe is likened to a coconut shell in the mythology of these islands, where the Māori offer taro to the agriculture god Rongo. Like Mount Aoraki, these islands are named for the British explorer who rode the *Endeavour* to New Zealand.

ANSWER: **Cook** Islands [or **Kūki** 'Āirani; accept Mount **Cook** or Captain James **Cook**]

<Geography>

9. Witold Gombrowicz's ("gom-BROH-vitch's") 800-page *Diary* is one of the works published by Yale University's Margellos series, which is titled for the "World" version of this construct. For 10 points each:

[10] Give this term for the network of intellectuals of 18th-century Europe. It takes its name from Pierre Bayle's pioneering book review journal, titled "News from" this construct.

ANSWER: **Republic of Letters**

[10] Pascale, a critic with this surname, analyzed the system of literary legitimation in her book *The World Republic of Letters*. A Venetian man of this surname recalled being presented to Elena Ballelli as a "candidate in the Republic of Letters" in his sexually-explicit 1797 autobiography.

ANSWER: **Casanova** [accept Pascale **Casanova** or Giacomo **Casanova**]

[10] The young protagonist receives "fresh news from the republic of letters" via his friend Monsieur Simon in this French author's *Confessions*. He also wrote *Emile, or On Education*.

ANSWER: Jean Jacques **Rousseau**

<European Literature>

10. Lovanium University opened in Leopoldville to offer university education to these people. For 10 points each:

[10] Give this French-language term used to designate assimilated Africans living in the French colonies. People described by this term spoke French and usually worked in white collar jobs that led to positions of power in post-colonial states.

ANSWER: **évolué** ("ay-vol-WAY") [prompt on **evolved**; prompt on **cultivated**; prompt on **developed**]

[10] Former *évolué* Félix Houphouët-Boigny ("oo-FWAY bwan-YEE") maintained close ties with France while leading this country from its 1960 independence until 1993. Its name refers to its once-popular export of elephant products.

ANSWER: **Côte d'Ivoire** [or **Ivory Coast**; or Republic of **Côte d'Ivoire**]

[10] In contrast to Houphouët-Boigny's close relationship with France, this first leader of Guinea led his country in rejecting a 1958 referendum for self governance within the French empire. In April 2019, this man's son Mohamed was convicted in Texas for enslaving a Guinean girl for 16 years.

ANSWER: Ahmed Sékou **Touré**

<World History>

11. In a technique named for this chemist, the partial charge on an atom is written as its atomic number minus a "GAP" matrix, which is formed from the element-wise product of the density and overlap matrices. For 10 points each:

[10] Name this chemist. The subscripts "g" and "u" denote *gerade* ("guh-RAH-duh") and *ungerade* ("OON-guh-RAH-duh") symmetry in a notation named for this chemist, which appears in the leftmost column of character tables.

ANSWER: Robert S. **Mulliken** [or **Mulliken** symbols; or **Mulliken** population analysis; do not accept or prompt on "Millikan"]

[10] The words *gerade* and *ungerade* are used to refer to inversion symmetries of these constructs. These constructs are classified as nonbonding, bonding, or antibonding.

ANSWER: **molecular orbitals** [or **MOs**; prompt on orbitals; do not accept or prompt on "atomic orbitals" or "AOs"]

[10] An example of a centrosymmetric geometry is this molecular geometry displayed by sulfur hexafluoride. In it, six atoms are bonded to a central atom.

ANSWER: **octahedral** geometry

<Chemistry>

12. Eustathius quoted a lost text about this event claiming that the medics Machaon ("muh-KAY-on") and Podalirius were sons of Poseidon, and not of Asclepius. For 10 points each:

[10] Name this event, during which looters guard their treasure in the shrine of Juno. The lost epic *Iliupersis* described this event, during which Creusa gets lost near a temple of Ceres while her husband carries his father into the land of Mars.

ANSWER: **sack of Troy** [or **fall of Troy** or **siege of Troy**; accept equivalents like **Troy being destroyed**; accept **sack of Ilium** or equivalents; prompt on the Trojan War]

[10] In the *Odyssey*, the blind poet Demodocus makes Odysseus weep by singing of the sack of Troy, and only this character notices his tears. This man orders a hecatomb ("HECK-uh-toom") sacrificed to Poseidon to stop his father Nausithous's ("naw-SITH-oh-us's") prophecy that their port will be surrounded by a mountain.

ANSWER: King **Alcinous** ("al-SIN-oh-us") of Scheria

[10] Alcinous's father Nausithous leads the Phaeacians ("fee-AY-shuns") from Hyperia to Scheria ("SCARE-ee-uh") to escape these beings. After Alcinous sees Odysseus weeping, he entertains him to share his story, and Odysseus begins by relating his encounter with these one-eyed beings on Polyphemus's island.

ANSWER: **Cyclopes** [or the **Cyclops**; or **Kýklōpes** or **Kýklōps**]

<Mythology>

13. Along with Constantine II ("the second"), this man was one of two Roman emperors to profess Arian Christianity. For 10 points each:

[10] Name this emperor who faced a revolt by the warrior queen Mavia and the Tanûkhids until he agreed to appoint the monk Moses as bishop. This emperor died fighting Fritigern at the Battle of Adrianople.

ANSWER: **Valens**

[10] Queen Mavia is often compared to this Palmyrene empress, who fought the Tanûkhids in addition to the Roman emperor Aurelian.

ANSWER: Septimia **Zenobia**

[10] After settling a truce with Valens, Mavia and the Tanûkhids joined his army in Thrace to fight these barbarians led by Fritigern. These people who belonged to “Ostro-” and “Visi-” branches were fleeing the Hunnic invasion.

ANSWER: **Goths** [accept **Ostrogoths** or **Visigoths**]

<Other History>

14. Of the one-thousand-plus instruments that Antonio Stradivari made, it is estimated that over 900 of them were these instruments. For 10 points each:

[10] Name this highest-pitched and most common string instrument in a standard orchestra.

ANSWER: **violins**

[10] Violin players often utilize this technique of plucking the violin’s strings. Béla Bartók pioneered and names a version of this technique that is so percussive, it produces a “snap” sound.

ANSWER: **pizzicato** [accept Bartók **pizzicato** or snap **pizzicato**; prompt on **pizz**]

[10] The player must naturally allow the bow to bounce from the violin’s strings in this type of stroke that is often confused with the spiccato stroke.

ANSWER: **sautillé** (“so-tee-YAY”) stroke

<Classical Music>

15. Answer the following about rivers in literature, for 10 points each.

[10] This author wrote a 1966 novel about the drug addict Anis Zani in *Adrift on the Nile*. The Nile River also serves as a backdrop in his other novels such as *Palace Walk*, which is part of his *Cairo Trilogy*.

ANSWER: Naguib **Mahfouz** (“mah-FOOZ”)

[10] This protagonist of V. S. Naipaul’s novel *A Bend in the River* buys a business at the title location from Nazruddin and sets up a store. His store is later shut down by the dictatorial “Big Man.”

ANSWER: **Salim**

[10] Toronto Poet Laureate Dionne Brand collaborated on *Rivers Have Sources, Trees Have Roots*, a collection of interviews dealing with racism in Canada, with a poet of this ethnicity. Another Canadian author of this ethnicity won the Lambda Literary Award for gay male fiction for his 1994 novel *Funny Boy*.

ANSWER: **Sri Lankan**-Canadian [accept **Sinhalese** or **Tamil**] (Brand collaborated with Krisantha Sri Bhaggiyadatta. Shyam Selvadurai wrote *Funny Boy*.)

<World/Other Literature>

16. The aggregation of these cellular fragments can be prevented using glycoprotein IIb/IIIa (“two-B-three-A”) inhibitors. For 10 points each:

[10] Name these cellular fragments produced by megakaryocytes (“mega-carry-oh-sites”). They aggregate to form a clot during coagulation.

ANSWER: **platelets** [or **thrombocytes**]

[10] Platelets are the primary [emphasize] *circulating* reservoir of this molecule, which is concentrated within dense granules along with ATP and ADP. During coagulation, platelets secrete this molecule that, at low concentrations, acts as a vasoconstrictor.

ANSWER: **serotonin** [or **5-HT**; or **5-hydroxytryptamine**; or **enteramine**; or **thrombocytin**; or **3-(beta-aminoethyl)-5-hydroxyindole**; or **thrombotonin**]

[10] Platelets store serotonin secreted by enterochromaffin cells, in which this amino acid is decarboxylated and hydroxylated at the 5 position to produce serotonin.

ANSWER: **tryptophan** [or **W**; or **Trp**]

<Biology>

17. This leader provided shelter to Roger Williams after his exile from the Massachusetts Bay Colony for spreading “diverse, new, and dangerous opinions.” For 10 points each:

[10] Name this leader, who was nursed back to health by Edward Winslow. This guest at the first Thanksgiving warned the Plymouth Bay Colony of an impending attack by the Massachusetts.

ANSWER: **Massasoit** Sachem [or **Ousamequin**]

[10] After his exile from Massachusetts Bay, Roger Williams founded Providence Plantations, which grew into this modern-day state. This state's disenfranchised rose up in 1841 during the Dorr Rebellion.

ANSWER: **Rhode Island**

[10] Edward Winslow's son Josiah Winslow led New England militiamen in killing hundreds of Narragansetts at a fort during this event in Rhode Island during the war with Massasoit's son King Philip.

ANSWER: The **Great Swamp** Fight [or **Great Swamp** Massacre]

<American History>

18. Answer the following about things you can buy with a nickel in American paintings, for 10 points each.

[10] A sign advertising five-cent Phillies Cigars hangs above the diner depicted in this Edward Hopper painting.

ANSWER: **Nighthawks**

[10] A theatergoer peers at the viewer in the painting *Movies, Five Cents* by John Sloan, a member of this art movement. The author of *The Art Spirit*, Robert Henri, was part of this group, whose art focused on scenes of daily life.

ANSWER: **Ashcan** School [or The **Eight**]

[10] Five-cent slot machines are the subject of several paintings by this artist. This artist created many brightly-colored oil paintings featuring rows of cakes, ice cream cones, and gumball machines.

ANSWER: Wayne **Thiebaud** ("TEE-bo")

<Painting/Sculpture>

19. The nicknames "Blanchet" and "Trompe-la-mort" are given to a character in this novel who breaks his thigh-bone after his carriage falls down a gorge. For 10 points each:

[10] Name this novel that ends with the body of Jean Marie Latour being laid before the altar of a church he built.

ANSWER: ***Death Comes For the Archbishop***

[10] This author used New Mexico as the setting of her novel *Death Comes For the Archbishop*, though she more characteristically set novels such as *My Ántonia* on the prairie.

ANSWER: Willa **Cather**

[10] In *Death Comes For the Archbishop*, this man and his wife take in Magdalena when she flees her murderous husband. The penultimate chapter describes a massacre of the Navajo committed by this "misguided friend" of the Archbishop.

ANSWER: **Kit Carson** [or **Cristóbal Carson**; accept any underlined name]

<American Literature>

20. The standardized rules for this process in the U.S. are referred to by the acronym GAAP. For 10 points each:

[10] Name this discipline substantially overhauled by the Sarbanes-Oxley Act in the wake of the Enron scandal.

This was the primary business of Arthur Anderson, which went bankrupt as a result of the scandal.

ANSWER: **accounting** [accept **bookkeeping**; accept **auditing**]

[10] The generally accepted accounting principles, or GAAP, are set by this non-profit organization. Established in 1973, this organization is overseen by the FAF.

ANSWER: **FASB** [or **Financial Accounting Standards Board**]

[10] The SEC requires companies that list stock using these facilities to adhere to GAAP. These places traditionally mark open and close of business with the ringing of a bell, though most, like Nasdaq, no longer use a physical bell.

ANSWER: **stock exchanges** [accept **securities exchange**]

<Social Science (Economics)>

21. This god decides, “I’m fed up with this world!” and leaves so rapidly in his anger that he put his boots on the wrong feet. For 10 points each:

[10] Name this Hittite agriculture god whose rage is appeased when the magic goddess Kamrušepa (“kam-roo-shay-pah”) sacrifices twelve rams to open the seven doors of the underworld. In a text about the Ki-Lam festival, vegetation grows on this god while he sleeps.

ANSWER: **Telepinu** [or **Telepinus**]

[10] Telepinu’s grandmother Hannahanna sends one of these animals to find him. Aristaeus (“uh-RIST-ee-uss”) learns to raise these animals from Demeter, whose priestesses of them got the name Melissae from the nymph who uses them to feed Zeus.

ANSWER: **bees** [or **honeybees**; prompt on insects or other nonspecific answers]

[10] Austėja (“ao-stay-yuh”) and Bubilas are bee gods of this ethnic group, whose old religion worshiping the sky god Dievas has been revived by the Druwi and Romuva movements founded by Vydūnas. They mostly live in Prussia and the Vilnius Region.

ANSWER: **Lithuanians** [or **lietuviai** or **lietuvis** or **lietuvė**]

<Mythology>