



ACADEMIC COMPETITION FEDERATION

2015 ACF NATIONALS
PACKET 7 BY THE EDITORS

TOSSUPS

1. One man who took part in this event related its narrative to Mayhew Folger, including the story of a bible that had been given to him by Ned Young. A book about the “cause and consequences” of this event written by John Barrow includes a copy of the journal by James Morrison. Another account of this event was first written by a man named Gabriel Marcel, at the National Library of France, but that narrative was bought for 300 francs by another man who published the story with his novel *The Begum’s Fortune*. A more popular account of this event from the perspective of Roger Byam, a personification of Peter Heywood, was written by the team of Charles Nordhoff and James Norman Hall. That account is the first in a trilogy, followed by the books *Men Against the Sea* and *Pitcairn’s Island*. For 10 points, name this event which allegedly saw Fletcher Christian lead a revolt against his tyrannical captain.

ANSWER: the Mutiny on the Bounty [or obvious equivalents that imply an uprising against Captain Bligh on the H.M.S. Bounty]

2. At one moment in this piece, a harp signals a glimpse of sunlight as the music reaches C major. As it builds towards a climax, indicated *con gran suono*, the central melody fades over a quietly beating drum while the accompanying strings play *col legno tremolos*. The composer’s notes atop the original score described the title figure anthropomorphically as “majestically singing.” The central solo melody of this piece is occasionally answered by brief phrases from the cello or viola, and is joined by a muted horn after a long period of silence from the brass. Originally conceived as a prelude to the composer’s opera *The Building of the Boat*, its main melody is played by an English horn, and it is the second part in a suite about the adventures of Lemminkainen. For 10 points, identify this tone poem by Jean Sibelius named for a bird that glides around the waters surrounding the land of the dead.

ANSWER: The Swan of Tuonela [or Tuonelan Joutsen]

3. In one of these works the speaker compares himself to a “hydropic drunkard” and a “night scouting thief” in lamenting his suffering. In another, the speaker invokes treasonous pilgrims to describe his “black soul.” A poem in this collection asks the addressee to “pour new seas in mine eyes, that so I might / Drown my world with my weeping earnestly.” The eleventh of them imagines the narrator as Christ commanding his Jewish executioners to “pierce my side,” while number 17, which begins “Since she whom I loved hath paid her last debt,” has often been read as an elegy to the poet’s wife, Anne Moore. In another of these poems, the speaker compares himself to a “usurped town” and asks the addressee to “break, blow, burn and make me new”. Often titled by their first lines, poems in this collection include “I am a little world made cunningly” and “Batter my heart, three person’d god.” For 10 points, identify this collection of nineteen poems which includes “Death, be not proud,” by John Donne.

ANSWER: Holy Sonnets [or Divine Meditations; or Divine Sonnets]

4. While serving as Special Assistant to the Secretary of Defense, this politician infamously joked “It doesn’t look too bad to me,” leading Jerome Cavanagh to respond “Usually the city isn’t burning!” As a result of that trip, this man wrote a report to the president on the cause of the 12th Street Riot in Detroit. Late in his career, as Special Envoy to the UN Secretary General, he negotiated a namesake plan which achieved two brief ceasefires between Franjo Tudjman and Slobodan Milosevic during the 1991 Croatian war, but was replaced by the Z-4 Plan. He was also the deputy to Averell Harriman at the 1968 Vietnam peace talks in Paris. Like Hillary Clinton, he wrote a memoir titled *Hard Choices*, recounting his opposition to the war-hawk policies of National Security Advisor Zbigniew Brzezinski. He resigned his highest office in reaction to Operation Eagle Claw, after which he was replaced by Edmund Muskie. For 10 points, name this man who succeeded Henry Kissinger as Secretary of State, and served in that office under Jimmy Carter.

ANSWER: Cyrus Vance

5. The hepatitis C protein NS3 acts as both a protease and as one of these proteins. The nuclear protein Mtr4p and the mitochondrial protein Suv3p are examples of the Ski2 family of these proteins. They're not dyneins or kinesins, but the "rolling" and "inchworm" models are proposed mechanisms for one of these proteins called PcrA. One type of these proteins contains a Q motif to control ATP binding as well as a Walker B motif containing an aspartate- glutamine-alanine-aspartate sequence. One type of these proteins is a hexamer which uses NTP hydrolysis to translocate along its substrate. Examples of these proteins include UvrD, RecQ, DEAD box proteins, and DnaB. These enzymes are loaded onto *ori* sites, where they break the hydrogen bonds between nucleobases, initiating replication. For 10 points, name these enzymes which generate a replication fork by unwinding double-stranded DNA.

ANSWER: helicases

6. A son of this man fought alongside Leonteus during the Trojan War and buried Calchas in Colophon. One story claimed that this man was killed by a dog with the unoriginal name of "Cerberus" while attempting to gain access to Cora, the daughter of the Molossian king Aedoneus. This father of Polypoetes is mocked by Lelex for objecting to a story told by Achelous in the *Metamorphoses*. After driving a herd of cattle out of Marathon, he befriended their owner, and aided that man in his attempt to abduct a 13-year-old princess. This character's wedding to Hippodamia was the occasion for the brawl between the Centaurs and his people. Heracles was unable to rescue this man from the stone in the underworld where he and a companion became stuck while this man was trying to abduct Persephone. For 10 points, name this Lapith king, a longtime companion of Theseus.

ANSWER: Pirithous [or Peirithous; or Perithous]

7. This religious leader's followers included David Darrow, who was arrested by local commissioners after being suspected of providing a flock of sheep to the "enemy." As a youth, this figure participated in the "silent meditations" organized by James and Jane Wardley who were themselves inspired by Camisards. According to Frederick W. Evans, who wrote a leading history of the group this person is affiliated with, a "special manifestation of divine light" appeared to this figure at the age of 22. Originally from Manchester, several followers including James Whittaker and John Hocknell joined this self-proclaimed "Bride of the Lamb" in settling at Watervliet, near the city of Albany, where she founded the United Society of Believers in Christ's Second Appearing and preached communal ownership of goods and celibacy. For 10 points, identify this Shaker leader known by the epithet "Mother."

ANSWER: Ann Lee [or Mother Ann; prompt on just "Ann"]

8. This system added a new command called SWAPGS so that the GS base can be quickly switched with the KernelGSBase. It assigns interrupts with a value in between 1 and 15 through the use of CR8, so that tasks can be prioritized. This system also supports a mode of "RIP-relative" addressing so that position independent code can be written with the base pointer as a reference. Its other advantages include the fact that a task state segment is no longer needed and a "long mode" in which approximately 40 bits are reserved for physical addressing. Products that use it include the Jaguar, which can be found inside the PS4 and XboxOne. This instruction set architecture was first developed by AMD, who first used it in their Opteron processors, though it was later implemented by Intel in 2004 in later releases of their Pentium 4 line. For 10 points, name this architecture that offers twice as many bits as x-86.

ANSWER: x-64 [or x-86-64; or AMD64; prompt on "64-bit architecture"; do NOT accept or prompt on "x-86" or "AMD"]

9. A collection by this author that was first translated into English by Georg D. Schade includes a story in which the narrator and his sick brother's wife Natalia arrange the brother's death during a pilgrimage to a shrine at the title place. The narrator of one of this author's short stories worries that Tacha will end up a whore like her two sisters after a cow is washed away by a flood. Thirty-five years after a dispute over cattle pasturing caused the main character of one of this man's stories to kill Don Lupe Terreros, the arrival of a firing squad prompts that character to make the title plea to his son Justino. This author of "Talpa", "Because We Are So Poor" and "Tell Them Not to Kill Me!" wrote a novel adored by Gabriel Garcia Marquez in which ghosts describe the title character's influence on the town of Comala to his son, Juan Preciado. The collection *The Burning Plain* was written by, for 10 points, which Mexican author of *Pedro Paramo*?

ANSWER: Juan Rulfo [or Juan Nepomuceno Carlos Perez Rulfo Vizcaino]

10. In one painting, this artist depicted numerous Catholics with bloody backs and pointed hats who are whipping themselves while men in black hoods control the crowd. An interior night scene by this artist depicts four dunce-capped men at an *auto-da-fe*. Both of those paintings, *The Procession of the Flagellants* and *The Inquisition Scene*, are part of this artist's program that illustrates religious mass hysteria while attacking the reign of the "Felon King." One painting by this artist, which is named for the feminine aspect of a demon, depicts two levitating men pointing at a plateau as soldiers on the bottom right aim their rifles at them. Another painting by this artist of *Asmodea* features his mistress Leocadia Weiss as the title *Seductress*. He made those paintings while at the Quinta del Sordo; where he also made a painting showing Saturn devouring his son. For 10 points, name this artist who created the so-called "Black Paintings."

ANSWER: Francisco Goya

11. Three years before this event, a journalist using the pen name Harry Alis was killed after being accused of accepting Belgian bribes, preventing his plans from being released to the Prince of Arenberg. The run-up to this incident saw one party abrogate the Mackinnon Treaty, which would have surrendered territory as far north as the Lado Enclave. That led Edward Grey to issue a warning in a speech given on behalf of Archibald Primrose. Prior to this incident, Major J.A.L. Macdonald was initially chosen to conduct a secret operation after news about the steamer *Faidherbe* and its mission reached the government of Lord Salisbury. Subsequently, the former victor at the Battle of Omdurman was tabbed to lead a flotilla of gunboats that ran into a force under Jean-Baptiste Marchand. This event eventually led to the Entente Cordiale. For 10 points, name this diplomatic incident in 1898 that saw France and Britain race each other to claim a muddy fort in Africa.

ANSWER: Fashoda Incident [or Fashoda Crisis of 1898]

12. This philosopher rejected the internal consistency of Plato's account of the fable of Gyges' ring in a work in which a Christian, an Epicurean and a Stoic debate what is the highest good. In his major work of language, this humanist, who authored *De Vero Bono*, quotes thirty pages of Quintilian's *Institutio Oratoria* since he has nothing new to add about the various forms of argumentation. He wrote a three-volume project that attempted to refute the grammars of Priscian, Donatus and Servius as well as the scholasticism of Aristotle titled *The Reploughing of Dialectic and Philosophy*. As a philologist, he authored a handbook on the Latin language titled *Elegantiae linguae Latinae*; interest in that language led him to author another treatise that argued a certain Roman ruler must have hid his true nature from his relatives and friends if Pope Sylvester I was really given authority over the entirety of the Western Roman Empire. For 10 points, name this Renaissance philosopher who demonstrated that the Donation of Constantine was a forgery.

ANSWER: Lorenzo Valla [or Laurentius Valla]

13. This work's narrator forgets to bring a dog with him when he visits the supposedly poisonous "Grotto of the Dog," making it impossible to see whether it will kill a dog in a minute and a half. In another section, the narrator reads about St. Philip Neri's heart, which was inflamed with so much divine love that it burst his ribs. It also relates a story in which a "relic-hunter" caused a wart to appear on the jaw of the sphinx. In an early chapter, a fellow named Mr. Blucher believes he is ruined when he orders a dinner that appears too costly for his compatriots. The narrator of this book tells the "Legend of the Seven Sleepers" after arriving in Ephesus. This book incorporated a series of letters that had appeared in the *Daily Alta California* and documents a trip aboard the *Quaker City*. The success of this book led its author to follow-up with the similar *A Tramp Abroad* and *Roughing It*. For 10 points, name this satirical travelogue subtitled "the New Pilgrims' Progress," in which Mark Twain poked fun at the Old World.

ANSWER: The Innocents Abroad

14. Recent excavations in this country's Bose Basin have unearthed the Acheulian axe, which repudiates the theory of the Movius Line. In 2012, the largest ever feathered dinosaur, of genus *Yutyrannus*, was discovered in this country. A French anthropologist working in this country argued that galactic, earth, life and consciousness were the four types of evolution, which he incorporated into his later book *The Phenomenon of Man*. In 1978, the elongated, fossilized skull of Dali Man was found in this country, providing some physical evidence of man in the Pleistocene. Johan Gunnar Andersson found two teeth in a cave near this country's "Chicken Bone Hill." A Jesuit anthropologist working in this country named Pierre Teilhard de Chardin worked with Davidson Black to discover the fossilized remains of a *Homo Erectus* in the Western Hills near Zhoukoudian. For 10 points, name this country of origin of Peking Man.

ANSWER: People's Republic of China

15. According to one account, this man planted 84 mulberry trees to feed silkworms after reading a manual on the subject, and he hosted a group at his home known as “Chiquita Francia” because they studied French books. Known as “El Zorro” or the “Fox” for his cunning, he met his end at the “Wells of Baján” after he was tricked into believing a shipment of weapons was there for him to take. His key victory over general Torcuato Trujillo at “Monte de Las Cruces” is now commemorated by La Marquesa National Park. After meeting at Charo, he directed his subordinate José Morelos to raise troops on the southern coast. This man, captured and executed after the Battle of Calderon Bridge, gained fame after he joined the Queretaro conspiracy and allegedly shouted “Long live Ferdinand VII!” and “Death to Bad Government!” out of a window, an event called the Grito de Dolores. For 10 points, name this Catholic priest who died in 1811, an early father of Mexican independence.

ANSWER: Miguel Hidalgo [or Miguel Hidalgo y Costilla; or Don Miguel Gregorio Antonio Ignacio Hidalgo-Costilla y Gallaga Mandarte Villaseñor]

16. This ligand is the main one found in a Chini cluster. Four of these ligands are found in Collman’s reagent. Walter Hieber synthesized many coordination complexes containing this ligand. This is the main ligand found in the cobalt catalyst which was originally used in the oxo process for hydroformylation. Along with cyanide and nitric oxide, this ligand lies at the top of the strong-field end of the spectrochemical series. This ligand has a vibrational frequency of 2143 cm^{-1} in the free state, but when bound to a metal this frequency decreases to 1700-2100 cm^{-1} due to pi backbonding. Four of these ligands are removed from a nickel center due to heating in the Mond process. This ligand has around 200 times the affinity of oxygen when binding to hemoglobin, making this compound a potentially fatal respiratory toxin. For 10 points, name this compound that forms carbonyl ligands.

ANSWER: carbon monoxide [or carbonyl ligand until it is read]

17. The protagonist of this novel stores his liquors in a “mouth organ,” and believes that each of his alcohols corresponds to a different musical instrument. In another section of this novel, the protagonist is inspired by reading Dickens to explore London, but is satisfied after hearing English speakers in a tavern in Dieppe. After having his tooth extracted by the dentist Gatonax, the protagonist of this novel sees that the tortoise whose shell he encrusted with jewels has perished on his carpet. This novel is probably the “yellow book” that Henry Wotton gives to Dorian Gray in Oscar Wilde’s novel. Its protagonist isolates himself in a house that he decorates with Gustave Moreau’s paintings, though after fainting, he abandons his pursuit of aestheticism and returns to Parisian life. For 10 points, name this novel in which Jean des Esseintes embraces a decadent lifestyle, a novel by Joris-Karl Huysmans.

ANSWER: A Rebours [or Against the Grain; or Against the Flow]

18. The strength of this phenomenon is maximized when the composition of a material is near the morphotropic phase boundary. The decrease in the resonant frequency of a material exhibiting this phenomenon when a mass is added to it is calculated using the Sauerbrey equation, which is the basis behind QCM instruments. This phenomenon’s longitudinal coefficient is unusually negative in PVDF. The coefficients of this phenomenon are located in a rank-3 tensor which is found in two coupled equations which relate the D-field to the stress tensor and the E-field to the strain tensor. This phenomenon occurs in ceramics that lack inversion centers, such as barium titanate and PZT. Materials exhibiting this phenomenon are used in the tips of scanning tunneling and atomic force microscopes. It famously occurs in Rochelle salt and quartz. For 10 points, name this phenomenon in which mechanical deformation of a crystal leads to the generation of an electric field, and vice versa.

ANSWER: piezoelectricity [or electrostriction]

19. A likely-fictional account and defense of this man’s life was written hundreds of years later by Lucas Tudensis. He composed many letters to his younger associate Braulio, who compiled a posthumous list of his works called the *Renotatio*. This man who is not Lucretius dedicated his text *On the Nature of Things* to the ruler Sisebut, a friend of his whom he praised as an enlightened king. This man’s younger sister Florentina allegedly held claim over forty convents, and at her request he wrote his two books *Against the Jews*, while his younger brother Fulgentius served as bishop of Astigi. He gained his highest office by replacing his older brother Leander, who had been a favorite of Pope Gregory I. This man is remembered for composing a twenty-book encyclopedia, which offers to explain the origin of several words, entitled the *Etymologies*. For 10 points, name this Doctor of the Church, a saint who served under the Visigoths in Spain as archbishop in Seville.

ANSWER: Saint Isidore of Seville [or Isidorus Hispalensis]

20. A 1991 Miles Davis recording of this song appears on the same track as the song “Dig” on the album *At La Villette*. According to its composer, this song was inspired by the “clackety-clack, clackety-clack” noises of a horse-drawn wagon moving over cobblestones. This song, which is usually recorded in the key of concert F, opens with a head in which the ninth and tenth bars are repeated twice for a total of 16 bars in its blues form. A Simha Arom and Genviève Taurelle LP inspired a version of this song in which Bill Summers imitated the sound of a *bindewhu* by blowing into a beer bottle. This song originally appeared on the album *Takin’ Off*, but was the subject of a popular recording by Mongo Santamaria in 1963; a later recording made by its composer added in funk elements and is found on the album *Head Hunters*. For 10 points, name this Herbie Hancock jazz standard named after a purveyor of a certain type of fruit.

ANSWER: “Watermelon Man”

TIEBREAKER

21. This poem describes “lakes of liquid gold,” “purple fires,” “angels in machines,” and “snakes on rolling spires,” at a location occupied by living teapots, jars, bottles and a solitary pipkin. That place in this poem is ruled by a monarch served by handmaids called “Ill-Nature” and “Affection.” A character in this poem visits that Queen to obtain a vial filled with “fainting fears” and “soft sorrows,” as well as a wondrous bag that holds the “force of female lungs” and the “war of tongues.” Later, that character finds his master weeping in Thalestris’s arms. At the end of this poem, the title object shoots “thro’ liquid air” and becomes a star; earlier, it was acquired by a noble during a game of ombre. This poem details a gnome’s visit to the Cave of Spleen, and it begins “What dire Offence from am’rous causes Springs, what mighty Contests rise from Trivial things.” For 10 points, name this mock heroic poem in which a baron cuts Belinda’s hair, by Alexander Pope.

ANSWER: The Rape of the Lock

BONUSES

1. In a humorous piece by this composer, the soloist rhythmically taps the keys of a typewriter. For 10 points each:

[10] Name this American composer of light concert music such as “The Waltzing Cat,” “Blue Tango,” and “Plink, Plank, Plunk.” He also composed the popular Christmas song “Sleigh Ride.”

ANSWER: Leroy **Anderson**

[10] Many of Anderson’s pieces were premiered by this orchestra, which was conducted for many years by Arthur Fiedler. It mainly performs light classical music, and puts on an annual Fourth of July concert at the Hatch Shell.

ANSWER: **Boston Pops** Orchestra

[10] These concerts, officially named for their longtime conductor Henry Wood, began as performances of light classical music. They take place every summer in the Royal Albert Hall.

ANSWER: BBC **Proms** [or the Henry Wood **Promenade** Concerts]

2. Answer the following about the rheology of Earth’s mantle, for 10 points each.

[10] The crust and the upper, solid component of the mantle compose the lithosphere, which “floats” on this high-viscosity component of the mantle, sometimes called the “low-velocity zone.”

ANSWER: **asthenosphere**

[10] A proposed mechanism for the viscosity of the mantle is this plastic deformation mechanism, in which the namesake crystallographic defects propagates through a lattice.

ANSWER: **dislocation creep** [prompt on “**creep**”]

[10] Data from this process provides some of the best information on the mantle’s rheology. In this process, the earth’s crust slowly returns to its original shape, once the ice sheets that existed on top of it have melted away.

ANSWER: **post-glacial rebound** [or **isostatic rebound**; or **continental rebound**; or **glacial isostasy**; or **glacial isostatic adjustment**]

3. This work distinguishes between three types of substance: matter, form and the compound of matter and form. For 10 points each:

[10] Name this work by Aristotle, which attempts to explain locomotion and sensation by analyzing what substance comprise the soul.

ANSWER: **De Anima** [prompt on “**On the Soul**”]

[10] In *De Anima*, Aristotle proposes three types of souls: the rational, the sensitive, and this most simple of the souls, which is the only type of soul that plants possess.

ANSWER: **nutritive** souls [or souls of **nutrition**]

[10] This other ancient philosopher wrote an *Inquiry into Plants* that scientifically discusses various ways plants grow. He succeeded Aristotle as the leader of the Lyceum.

ANSWER: **Theophrastus**

4. Chapters in this novel often end with “observations” in which the author himself steps in and provides moralizing commentary on the tar-and-feathering or imprisonment that just occurred. For 10 points each:

[10] Identify this 1815 novel, considered an “American *Don Quixote*,” which follows the journeys of the bog-trotter Teague O’Regan and his master, John Farrago, across America.

ANSWER: **Modern Chivalry**

[10] *Modern Chivalry* was written by this early American author who founded the school that became the University of Pittsburgh. He collaborated with a contemporary poet on the wacky novel *Father Bombo’s Pilgrimage to Mecca*.

ANSWER: Hugh Henry **Brackenridge**

[10] That collaborator with Brackenridge was this “Poet of the American Revolution”, who also wrote “The Wild Honey-suckle” and “The Indian Burying Ground”.

ANSWER: Philip Morin **Freneau**

5. Together with David Marshall, this man took part in the 1955 Baling talks, which brought an end to the Emergency, sending communist leader Chin Peng into exile in Thailand. For 10 points each:

[10] Name this man who then became the first prime minister of independent Malaysia, after leading a delegation of the Alliance Party to gain autonomy from Britain.

ANSWER: Tunku Abdul **Rahman** Putra Alhaj

[10] This term, which comes from a Sanskrit word meaning “son of the soil,” was used in Malaysia to refer to native Malay people. These people were preferred under the initial constitution and the New Economic Policy, causing strife with the Chinese Malaysians who accounted for a large percentage of the population.

ANSWER: **bumiputras** [or **bumiputeras**]

[10] This very recently-deceased man, the first prime minister of Singapore and the leader of the People’s Action Party, repeatedly tried to merge Singapore with Malaysia, but Tunku Rahman stonewalled him.

ANSWER: **Lee** Kuan Yew [or Harry **Lee** Kuan Yew]

6. The coupling between two of these waves allows for energy transfer between two nearly adjacent waveguides. For 10 points each:

[10] Name this kind of wave whose intensity decays exponentially as it propagates away from the interface in which the wave was formed.

ANSWER: **evanescent** wave

[10] Evanescent waves are the cause of the “frustrated” form of this effect. In this effect, light incident on a boundary between two media at an angle larger than the critical angle produces no refracted ray in the second medium.

ANSWER: **total internal reflection** [or **TIR**; prompt on “internal **reflection**” or “total **reflection**”]

[10] In an optical fiber, this is the critical angle of incidence below which a light ray will remain in the fiber due to repeated total internal reflection. The sine of this angle gives the numerical aperture of the fiber.

ANSWER: **acceptance** angle

7. Answer the following about colonial decorative arts, for 10 points each.

[10] Between 1770-1830, Samuel McIntire and Duncan Phyfe made furniture in this American style, including the “Chest-on-Chest” of William Lemon. It is analogous to the German style of *biedermeier*.

ANSWER: **Federal** style

[10] The Federal style was directly influenced by this other eponymous style, named for a trio of Scottish neoclassical interior designers. Two of this style’s namesakes, Robert and John, designed the Royal Exchange at Edinburgh.

ANSWER: **Adamesque** style

[10] Another Federal-style decorative artist was Paul Revere, who became renowned for making furnishings out of this metal. A portrait by John Copley shows him with a teapot made out of this substance.

ANSWER: **silver**

8. At the namesake fortress on the river Seine, Philip and Gauthier d’Aulnay were tortured and flayed after they were discovered to be carrying the purses of three French princesses which they received at a puppet show in this incident. For 10 points each:

[10] Name this 1314 scandal during the late reign of Philip the Fair, which saw the She-Wolf of France Isabella allow her sisters-in-law to be imprisoned.

ANSWER: **Tour de Nesle** Affair

[10] The Tour de Nesle Affair hastened the downfall of this French dynasty, which ended with Charles IV in 1328, after having been established by a man named Hugh in 987 CE.

ANSWER: **Capetian** Dynasty

[10] Just prior to the Tour de Nesle Affair, Philip the Fair had this last Grand Master of the Knights Templar burned at the stake in front of Notre Dame.

ANSWER: **Jacques de Molay** [prompt on “**Jacques**” or “**Molay**”]

9. Edward Said asserted that this novel “works so effectively because its politics and aesthetics are, so to speak, imperialist”, in that it depicts a world in which non-imperialist alternatives are “unthinkable”. For 10 points each:

[10] Name this novel, which was attacked for its failure to give “human expression” to its African characters in Chinua Achebe’s “An Image of Africa”, which declares “Conrad was a bloody racist!”

ANSWER: **Heart of Darkness**

[10] Mustafa Sa’eed describes having sex with a lot of white women before abandoning the West to return to Sudan in this Tayeb Salih novel, which can be seen as a sort of reverse *Heart of Darkness*.

ANSWER: **Season of Migration to the North** [or **Mawsim al-Higra ila ash-Shamal**]

[10] Captain Donne’s crew is slowly killed during a *Heart of Darkness*-like trip to the interior of Guyana in *The Palace of the Peacock*, the first novel by this author. Conradian themes also appear in his novels *The Far Journey of Oudin* and *The Secret Ladder*.

ANSWER: Wilson **Harris** [or Theodore Wilson **Harris**]

10. This man’s landmark book was inspired by Paul Gauthier’s tract “The Poor, Jesus, and the Church.” For 10 points each:

[10] Name this Dominican priest from Peru who became the father of liberation theology after writing the 1971 book *A Theology of Liberation*. He coined the notion of “God’s preferential option for the poor” in his speeches, and wrote *We Drink from Our Own Wells*.

ANSWER: Gustavo **Gutiérrez** Merino

[10] This Archbishop of San Salvador became a martyr-hero of liberation theology after he was assassinated in 1980 while giving Mass in the wake of an Opus Dei celebration. He’s sometimes dubbed the patron saint of the poor in El Salvador.

ANSWER: Oscar Arnulfo **Romero** [or **Romero** y Galdamez]

[10] Another leader of liberation theology, Juan Segundo, met Gutierrez in Belgium while studying under this order, which was founded by St. Ignatius of Loyala and studies the Spiritual Exercises.

ANSWER: **Jesuits** [or **Society of Jesus**]

11. Roger Farmer criticized the University of Minnesota “calibrators,” Ed Prescott and Tom Sargent, for relying on this theory. For 10 points each:

[10] Name this New Classical theory, associated with “sweetwater schools of economics,” which argues that the namesake phenomena are driven by technology shocks and monetary shocks.

ANSWER: **real business cycle** theory [or **RBC** theory; prompt on “**business cycles**”]

[10] A devastating early critique of Real Business Cycle theory by this one-time president of Harvard analogizes it to a tent “flapping in the breeze” since it has no predictions absent strong assumptions placed on its parameters.

ANSWER: Lawrence **Summers**

[10] A key tenet of RBC models is this three word phrase, which suggests shocks propagate because investment in period t only results in productive capital in some later period. This phrase is paired with “Aggregate Fluctuations” in Kydland and Prescott’s early paper on RBC.

ANSWER: **time to build**

12. This technique, which is similar to FLIP, can be used to determine the diffusion coefficient for a molecule in a lipid bilayer. For 10 points each:

[10] Name this technique in which a cell membrane is exposed to a light pulse, after which a confocal microscope is used to measure the normalized intensity of a certain process, which rapidly returns to one over time.

ANSWER: **FRAP** [or **Fluorescence Recovery After Photobleaching**]

[10] Non-fluorescent proteins can still be studied using FRAP by labelling them with this protein first discovered in the jellyfish *Aequorea victoria*. When excited by light, this protein’s fluorescence spectrum has an emission maximum at around 509 nm.

ANSWER: **GFP** [or **green fluorescent protein**]

[10] Eleven antiparallel strands in the structure of GFP form one of these structures, which come in up-and-down and jelly roll types. In this structure found in many porins, the strands are coiled such that the first strand is bonded to the last one.

ANSWER: **beta-barrel** [do NOT accept or prompt on “beta sheet”]

13. This fictional place is located just north of a tropical island called Gaaldine, and it was ruled by Julius Brenzaida, who marries Rosina but fathers a daughter known as A.G.A. with Geraldine Sidonia. For 10 points each:

[10] Identify this fictional land that first appeared after its two creators grew tired of being minimized in a game about the Glasstown Confederacy. It was the setting of poems like “Remembrance” and “The Prisoner”.

ANSWER: Gondal

[10] Gondal figures heavily in the juvenilia of these two authors, who later went on to write the novels *Agnes Grey* and *Wuthering Heights*. Name both.

ANSWER: Emily and Anne Brontë [prompt on partial answers; prompt on Ellis and Acton Bell]

[10] Unlike her sister Emily, Anne Brontë completed a second novel. That novel, *The Tenant of Wildfell Hall*, is narrated by this man, who falls in love with Helen Graham, the title character, only to learn that she is still married to Arthur Huntingdon.

ANSWER: Gilbert Markham [accept either underlined portion]

14. A legend blamed these events on the Chickasaw Chief Reelfoot who had a club foot, and kidnapped an Indian maiden of another tribe, bringing disaster to his people. For 10 points:

[10] Identify this series of four earthquakes beginning in 1811 named for a fault line in a Missouri town. Accounts of these quakes claim they created the world’s largest sand boil and that the Mississippi River ran backwards.

ANSWER: New Madrid earthquakes

[10] During the earthquakes, the steamboat *New Orleans* was making its first full run of the Mississippi. Four years earlier, Robert Fulton had designed this first commercially-successful steamboat, originally called the North River Steamboat, which ferried between New York City and Albany.

ANSWER: Clermont

[10] At New Madrid in 1862, during the Civil War, John Pope and a flotilla under Andrew Foote put siege to an island named for this number. The taking of this island resulted in the Confederates losing vital position on a bend of the Mississippi River.

ANSWER: Island Number Ten [or the Battle of Island No. 10]

15. For 10 points each, answer the following about artists who depicted Simonetta Vespucci.

[10] The title figure of this Botticelli painting, who gracefully stands on a cockle shell and appears to be about to be robbed by an Hour, is thought to be a portrait of Simonetta Vespucci.

ANSWER: The Birth of Venus

[10] This artist painted a profile portrait of Simonetta Vespucci, who has an exposed bosom and an asp coiled around her neck. His painting *The Forest Fire* was inspired by a passage in Lucretius’s *De Rerum Natura* that describes the emergence of the different animals that occurred when the world was born.

ANSWER: Piero di Cosimo [or Piero di Lorenzo]

[10] This art historian’s essay “Father Time” made the case that Piero di Cosimo’s depiction of *Hylas and the Nymphs* was actually a depiction of *The Finding of Vulcan on Lemnos*; that essay appears in this man’s *Studies in Iconology*.

ANSWER: Erwin Panofsky

16. This set of rules predicts a value of 214 nm for alpha-beta unsaturated ketones. For 10 points each:

[10] Name this set of rules used to predict the wavelength of maximum absorbance for conjugated dienes, polyenes, and carbonyls.

ANSWER: Woodward-Fieser rules [or Woodward’s rules]

[10] The Woodward-Fieser rules are used to predict absorbances in this form of spectrophotometry, which is named for the two wavelength ranges it comprises.

ANSWER: UV/Vis spectroscopy or spectrophotometry [or ultraviolet/visible]

[10] The Woodward-Fieser rules predict that each double bond extending the conjugation of a diene shifts the wavelength of maximum absorption by this value.

ANSWER: 30 nm [or 30 nanometers]

17. Name these Italian librettists, for 10 points each.

[10] The first professor of Italian literature at Columbia College was this man, whose most enduring fame comes from his libretti for *Così fan tutte*, *Don Giovanni*, and *The Marriage of Figaro*.

ANSWER: Lorenzo **Da Ponte** [or Emanuele **Conegliano**]

[10] Alberto Franchetti wrote the opera *La figlia di Iorio* to a libretto by this playwright of *Francesca da Rimini* and *La Gioconda*. His novels include *The Flame of Life* and *The Triumph of Death*.

ANSWER: Gabriele **D'Annunzio**

[10] The words to the popular canzonetta *La Partenza* were written by this member of the Arcadian Academy, who wrote the libretti *Didone Abbandonata* and *La Clemenza da Tito*, though the latter was rewritten by Caterina Mazzola when Mozart used it.

ANSWER: **Metastasio** [or Pietro **Trapassi**]

18. Answer the following about Olof Palme, for 10 points each.

[10] Palme wrote his honors thesis on this hero of his, the leader of the United Auto Workers union, who Palme interviewed in Detroit. While taking a photograph, this man was beaten at the River Rouge Ford plant in the 1937 Battle of the Overpass.

ANSWER: Walter Philip **Reuther**

[10] Some theories suggest that Palme was murdered as a result of the Bofors scandal, in which over 8 billion dollars of weapons were supplied to this country, largely due to Palme's friendship with its leader Rajiv Gandhi.

ANSWER: **India**

[10] Palme was a friend and protégé of this man, who had served as Prime Minister of Sweden from 1946 to 1969, often in collaboration with the Farmers League, before he was succeeded by Palme.

ANSWER: Tage **Erlander** [or Tage Fritiof **Erlander**]

19. Answer the following about a man who pioneered the field of garbology, for 10 points each.

[10] This anthropologist, together with his graduate students, collected trash from various parts of Tucson, Arizona in his Garbage Project, in order to study the consumption habits of rich and poor Americans. He published results in his book *Rubbish!: The Archaeology of Garbage*.

ANSWER: William **Rathje**

[10] Before his death, Rathje left Arizona to become a professor at this university where Philip Zimbardo conducted his prison experiment.

ANSWER: **Stanford** University

[10] Rathje alludes in his work to this earlier American anthropologist, who referred to culture as consisting of "shreds and patches." He helped develop the discipline of salvage ethnography by conducting extensive fieldwork among the Crow Indians.

ANSWER: Robert Harry **Lowie**

20. Answer the following about Book 8 of the *Aeneid*, for 10 points each.

[10] Aeneas becomes allies with this Arcadian king in Book 8. His son Pallas is later slain by Turnus.

ANSWER: **Evander**

[10] Evander entertains his guest Aeneas by telling him the story of Cacus, a dastardly cattle-thief who makes his residence underneath this Roman location.

ANSWER: the **Aventine** Hill

[10] At the end of Book 8, Aeneas sees one of these things, which is carved with depictions of future events. In *The Iliad*, one of these made for Achilles is the subject of an *ekphrasis*.

ANSWER: **shields**