**2010 ACF National Championship**

**Editor’s Round (Playoff #5)**

1. The Langlands program in mathematics relates to the attempt to understand this as applied to the algebraic closure of the rational numbers. For the polynomial x to the fourth plus three x squared plus five, it associates the dihedral group of order 8. It involves eponymous groups of automorphisms of a field that preserve a given subfield. The fundamental theorem of this subject establishes a one-to-one correspondence between subgroups of its namesake group and intermediate fields of a field extension. Although its most famous result was proved earlier by Abel, the establishment of this field led to a deeper understanding of the insolubility of the quintic equation by radicals. For 10 points, what is this branch of mathematics named for a French mathematician who was killed in a duel at age 20?

ANSWER: Galois theory

2. This book opens by claiming that three groups – one marked by the absence of hypotheses, the Teutonic school, and the Bancroft school – are the three schools of historical research. Its diminishing impact was noted by Ellen Nore, the biographer of its author, and started primarily after Forrest Macdonald’s devastating takedown of its research. A late chapter looks at the “Political Doctrines” of the men this book targets, and the penultimate chapter examines the “Popular Vote” on the titular item. The final chapter includes a long analysis of John Marshall’s *Life of Washington* and this book also contains a detailed catalog of the public securities and land holdings of a group of 18th-century Americans. For 10 points, name this book which argued that the Founding Fathers were only interested in preserving their wealth in drafting the titular document, a 1913 monograph by Charles Beard.

ANSWER: *An* ***Economic Interpretation of the Constitution*** *of the United States*

3. A paper by Andreoni and Miller used simulations and lab experiments to parameterize it using a revealed preference framework. Dale Miller wrote an article in American Psychologist arguing that to deny it leads to a tautology. The competitive form of it was introduced by Gilbert Roberts, who explained it by the handicap principle and signaling benefits. Daniel Batson tackled the question of this behavior, which he links in a namesake hypothesis with empathy. Pitirim Sorokin wrote a 1950 study about this type of love, subtitled as "a Study of American Good Neighbors." In a book subtitled "Toward a Social Psychological Answer," Along with fatalistic, anomic, and egoistic – it was identified by Emile Durkheim as one type of suicide. For 10 points, name this type of behavior in which agents account for benefits to people other than themselves.

ANSWER: **altruism** or **altruistic** behavior

4. This work recounts an encounter with a man who supports Cuban independence by working as a cigar roller in Jacksonville. The protagonist ends up playing Mendelssohn’s “Wedding March” at a club that hosts lots of slumming visitors; this is where he meets “my millionaire” and witnesses the murder of a widow who bought him a drink. Though he grows up in Connecticut, the protagonist attends school in Atlanta, but after seeing a man being burned at the stake decides to leave Georgia for good. The protagonist later recognizes his childhood friend “Shiny” walking in New York and resolves to tell his new fiancé the truth. Its author, who would revisit the same theme in 1933’s *Along this Way*, based this work on the life of his friend and law partner Judson D. Wetmore, who succeeded in graduating from Michigan Law by “passing.” For 10 points, name this novel about a black man who lives as a white man, a work by James Weldon Johnson.

ANSWER: ***The Autobiography of an Ex-Colored Man***

5. Its major portions were completed by a select group of the artist’s pupils, including Antonio Raggi and Claude Poussin. Its building was highly unpopular due to the new bread tax instituted to finance its construction. The artist himself was responsible for the images at the center, which were carved in situ, and include a horse and a palm tree. Another pupil, Baratta, was responsible for the bearded black man who sits on a pile of coins and has his arm upraised, a gesture theorized to be an insult to the design of the neighboring church of Sant’Agnese by Borromini. It is also populated by several types of animals, including a few lions and the dove at the top representing the Pamphili family of its patron, Innocent X. For 10 points, name this structure in the Piazza Navona of Rome that was designed by Bernini and includes personifications of the Rio de la Plata and the Ganges.

ANSWER: **Fountain of the Four Rivers** (or **Fontana dei Quattro Fiumi**)

6. In one section, the author cites Jose de Acosta’s work on Peru, to highlight the infancy of the title concept. In another part, the author explores the tension inherent in the rational adoption of “prerogative.” The author quotes extensively throughout from *The Laws of Ecclesiastical Polity* by Richard Hooker, particularly in the chapter, “On the State of Nature.” This work attempted to prove that Adam had not, either by donation from God or by right of fatherhood, any natural authority over his children, and posited a theory of property based on improvement in an attempt to justify the legitimacy of the Glorious Revolution. Published anonymously in 1690, [\*] they address the true extent of a civil society and refute “the false principles and foundation” of the *Patriarcha*, a work by Sir Robert Filmer. For 10 point, identify this pair of essays by John Locke.

ANSWER: ***Two Treatises of Government*** or ***Locke’s Two Treatises***  or ***Locke’s Treatises of Government*** [accept ***The Second Treatise of Government*** before \*]

7. Roger Gene Miller’s history of this event details the complex block and ladder system used during it that initially gave low priority to Yorks.  Jake Schuffert created popular uncensored cartoons for the *Task Force Times*, a paper written for members of this operation.  It was preceded by the Gatow Disaster, and coal was a key component of its so-called “Easter Parade.”  One commander of this operation, sometimes known as “Willie the Whip,” had earlier made journeys across the Hump in Asia more efficient. Gail Halvorsen became known as The Chocolate Uncle during this event, which was supported by Ernst Reuter. Officially designated as Operation Vittles, it was overseen by “Tonnage” Tunner, but the man most responsible for it was Lucius D. Clay.  For 10 points, name this operation that relieved residents of a city blockaded by the Soviets following World War II.

ANSWER: **Berlin Air Lift** [or Berlin Blockade; accept **Operation Vittles** before mentioned]

8. The second act features the symbolic vision of a goldfinch being captured and killed by a hawk, that scene is preceded by an episode in which the protagonist’s footman pretends to be a Latin instructor from Coruna in order to gain access to his master’s love. When a rival suitor takes the green ribbon from a railing, it leads to an unsolicited marriage proposal for the heroine, whose beauty had earlier captivated the hero at the *Feria*. Later, even though the title hero saves his rival from being gored by a bull in Medina, Rodrigo still ambushes him and shoots him to death. Its author adapted portions of *La Celestina* in this work’s depiction of the witch Fabia, whose machinations fail to bring Ines and the noble Alonso together. For 10 points, identify this work about a warrior from a Castilian city, a play by Lope de Vega.

ANSWER: ***The Knight from Olmedo*** or ***El Caballero de Olmedo*** or [***The Knight of Olmedo***]

9. In zeolite pores, a confinement effect that acts primarily upon this entity reduces the gap between it and its counterpart. The ionization potential of a closed-shell system may be determined by ascertaining the negative of its energy, a relationship described by Koopman’s theorem. Walsh’s rule predicts that molecular structures are predicated on the stability of *these*, while in ring-opening electrocyclic reactions, their symmetry directs the symmetry of the newly formed p-orbitals. Lewis bases have a lone pair of electrons in this region, and the photochemical induction of cycloaddition of ethylene is activated by excitement of a pi electron that migrates to enter a new one of these. The Diels-Alder reaction involves interaction between this orbital of the diene and the opposite orbital of the dienophile. For 10 points, name this frontier orbital that contains at least one electron.

ANSWER: **HOMO** or **highest occupied molecular orbital**

10. It opens with a slow three bar sequence that is eventually joined by a second melody for first violins based on a folk song that was brought to the composer’s attention by Percy Grainger and named “In Ola Valley.” The first melodic theme consists of a sequence of phrases written for strings and oboe that is played once and then softly repeated as if the instruments are engaged in an exchange. This work, whose composition was preceded by *A Song of the High Hills*,was completed in the same year as its companion piece *Summer Night on the River*. A tone poem, which was first performed in Leipzig in 1913, it concludes with a clarinet mimicking the calls of the title creature. For 10 points, identify this musical sketch that depicts a bird stirring after the long winter, a work by Frederick Delius.

ANSWER: ***On Hearing the First Cuckoo in Spring***

11. In their most famous work the 13th image is entitled *The Anatomical Man* but of the two figures seen it is a woman, with the signs of the zodiac ascending up her naked body, who faces the viewer. That work ends with preliminary drawings for two more images, but the actual final image is that of the *Martyrdom of St. Andrew*. In the same work, their patron can be seen wearing a brilliant blue robe on the right on the first folio. Some of their sections were completed by the “Master of Shadows” and in their time they were known as the “courtly,” “pious,” and “rustic” painters. Their major achievement remains the opening calendar, featuring one month painted by Jean Colombe. They worked at the behest of Jean, Duc de Berry, and their names were Johan, Herman, and Paul. For 10 points, name this group who created the major illuminated manuscript of the 15th-century, *Tres Riches Heures*.

ANSWERs: the **Limbourg** brothers

12. The section discussing the distribution of alms is followed by a chapter on the temptations of the enemy and the importance of understanding “scruples.” Another section of this work details the “three types of men” and the “three kinds of humility.” It advocates a position that “the intimate understanding and relish of truth” derives from self discovery rather than being preached at. This work was first printed as a Latin translation by Andre des Freux known as the *versio vulgata*, though the bulk of this 1548 work was written during a retreat at Manresa. Containing such sections as “The Kingdom of Christ” and “The Two Standards,” it is divided into “weeks” and outlines a regimen of meditation that its author deemed central to the establishment of the Society of Jesus. For 10 points, identify this pedagogical work by St. Ignatius of Loyola.

ANSWER: ***Spiritual Exercises*** [accept **Loyola’s *Exercises***]

13. A system of N interacting bosons can be regarded as a Bose-Einstein condensate if the single particle this has one eigenvalue of order N and all the others of order 1. Banks, Peskin, and Susskind showed that if it obeys an equation more general than Schrödinger’s, as suggested by Hawking, locality or energy conservation would be violated. The von Neumann entropy is minus the trace of this matrix times its logarithm. If and only if it is equal to its own square, it represents a pure state and could be alternately represented simply as a wavefunction. For 10 points, what is this mathematical description of general mixed states in quantum mechanics, with a name that evokes its use as a measure of the amount of "weight" of wave function per "volume" of configuration space?

ANSWER: **density matrix**

14. Its leader was only able to escape after assuming the identity of Betty Burke, a servant to a supporter of his. The panic of December 6th or “Black Friday,” during this event is described in the memoirs of Chevalier de Johnstone, who took part in it. It was planned at meetings of the Association, a group that included the noblemen Lovat, Drummond, and Linton and began with the embarkation of the warships *Doutelle* and *Elisabeth*. The first major battle saw the defeat of forces under John Cope and skirmishes at Stirling Castle and Derby followed. Despite their initial victory at Prestonpans the instigators would be crushed the next year by a son of George II, the Duke of Cumberland. For 10 points, identify this uprising that ended with Bonnie Prince Charlie’s defeat at Culloden, a Jacobite rebellion named for the year in which it began.

ANSWER: Jacobite Rebellion of 17**45** or the **Forty-Five** (accept equivalents for rebellion as long as year is mentioned; prompt on Jacobite Rebellion, Revolt, etc. until Jacobite is mentioned)

15. Minor characters in this work include the lustful Scottish Captain Hausbank and a pair of prostitutes who administer magical vials of perfume and are nicknamed the Skeleton and the Mattress. Much of the center portion of the book concerns the adventures of a tulip tattooed mercenary called the Turk whose retinue includes a quartet of Swiss giants, and who long ago left his childhood friends Agostino and Nicolo behind. It contains two epigraphs, one by Mirza Ghalib and another by Petrarch, and opens with a cart approaching the glowing lake of Sikri and a blonde man’s demands to see the emperor, so that he might tell him how they are both descended from the title figure, a woman alternatively known as Lady Black Eyes and Qara Koz. For 10 points, identify this 2008 work that juxtaposes events set at Akbar’s Mughal court with Machiavelli’s Renaissance home, a novel by Salman Rushdie.

ANSWER: ***The Enchantress of Florence***

16. Seven sons of this figure were renamed Maine in order to satisfy the misleading prophecy of a druid, while this figure's daughter Findabair was promised in marriage to Fraech in return for a battle pledge, though his death caused Findabair to die of grief. One story says that this figure died while bathing after being hit on the head by a hunk of cheese slung by Furbaide, who was avenging the death of his mother Eithni at the hands of this figure. This figure shares her name with the Celtic goddess of intoxication, and it was said that she could only be sexually satisfied by Fergus mac Roich, though her most famous partner was Ailill. Perhaps most famously, she grows jealous over Aillil's possession of Finnbennach, which starts the Cattle Raid of Cooley. For 10 points, name this Queen of Connaught.

ANSWER: **Medb** (or Queen Maeve, Maev, Maive, Meadbh, etc.)

17. In his talk on “Taste,” which he later turned into an essay, he took issue with the work of Malcom Morley and David Salle among others. In another essay he defined one of the titular movements by saying it originated in France in the poetry, painting, and prose fiction of Baudelaire, Manet, and Flaubert respectively. In addition to *Modern and Postmodern* he attempted to give proper credit for the titular art medium, to either Braque or Picasso, in his seminal essay *Collage*. In his major work he concluded that socialism was the means of preservation for whatever living culture, particularly artistic, that exists and also popularized the titular German word. He would go on to become an ardent supporter and promoter of Hans Hoffman and Jackson Pollock. For 10 points, name this art critic and author of “Avant-Garde and Kitsch.”

ANSWER: Clement **Greenberg**

18. Under his leadership persons of European descent were disenfranchised and those of *pardo* descent were favored. Swept into power after the Parian Market was destroyed during the Acordada riots, his tenure ended after he was kidnapped by an Italian ship captain and executed. At one point this man, who would go on to abolish slavery in his homeland, missed hooking up with the forces of Javier Mina, who would have boosted the army he had been put in charge of when Morelos named him commander of the South. In addition to leading his army to victory at such battles as Huetamo and Santa Fe, this man who helped Iturbide draft the Plan of Iguala took power in 1829, but was deposed under the Plan of Jalapa that saw the rise of the conservatives under Lucas Alaman. For 10 points, identify this revolutionary hero and early president of the Mexican republic.

ANSWER: Vicente Ramon **Guerrero** Saldana

19. A major signaling pathway in these cells is the APS-Cap-CBL pathway. Individuals with Berardinelli-Seip disease lack this cell type. P-P-A-R-gamma-two regulates their differentiation and also functions as a thi-a-zo-lid-ine-di-ene receptor in these cells. This cell type features an unusual cortical actin structure associated with caveolae “rosettes”, which was first characterized in the 3T3-L1 cell line. With increasing age, differentiation of marrow stromal cells shifts to favor this cell type over osteoblasts. This cell type’s secretions include resistin, estrogen, and leptin. The unilocular, or “white”, type of this cell predominates in adults, while newborns have more of the mitochondria-rich multilocular, or “brown” type. For 10 points, name this type of cell which stores fat.  
ANSWER:  **adipocytes** (accept **adipose** cells; accept **fat cells** before “fat” is read)

20. This work alludes to Samuel Daniel’s *Musophilus* in its description of an “actor” who fills his “humorous stage.” The speaker later addresses a figure whose appearance belies his soul’s immensity, in this work, which was written with an eye toward the books of Enoch and Elijah according to *The Fenwick Notes*. It features an epigraph from Virgil, “Let us sing of somewhat more exalted things,” and ends with a section addressing “fountains, meadows, hills, and groves,” and their once “habitual sway.” This work in eleven stanzas, which was first published in the 1807 collection *Poems in Two Volumes*, opens with the speaker’s realization that the “the glory and the freshness of a dream” is “not now as it has been of yore.” For 10 points, identify this work that tries to reconcile the lost world of the speaker’s youth with the realities of adulthood, a poem by William Wordsworth.

ANSWER: “**Ode. Intimations of Immortality from Recollections of Early Childhood**” [also accept “**Ode. Intimations of Immortality**” or the “**Immortality Ode**”]

21. Guven and colleagues pioneered the attachment of these molecules to copolymeric hydrogels to control swelling rate. The surface chemistry of activated carbon was formerly modeled as this type of chemical, though newer methods use a simpler two-parameter approach. In aqueous suspensions, metal particles behave like this type of chemical. Though tyrosine and glutamate are not this type of compound, thirteen of the most common amino acids are. K-sub-a-2 is typically the lowest dissociation constant for this type of acid, examples of which include carbonic acid and sulfuric acid, and titrations for these acids typically show two equivalence points. For 10 points, name this type of acid that can generate two moles of hydronium ion per mole of acid dissociated.

ANSWER: **diprotic** acids

22. One anecdote relates how he ordered a town to be sacked unless one of its citizens could finish an enormous flagon of wine which one citizen, Heinrich Toppler, did before dying. His own death occurred at a battle in which his subordinate and successor Aldringen was also wounded. After an indecisive encounter at Wiesloch, he embarked on a string of victories including one at Stadtlohn, where he defeated one of his rivals Ernst of Mansfield. Three years later his defeat of Christian IV at Lutter forced the Treaty of Lubeck, resulting in the entry of his eventual chief adversary. The events that followed included his sacking of Magdeburg and death at Lech. For 10 points, name this man who was crushed at Breitenfeld by Gustavus Adolphus, the commander of the forces of the Catholic League who had been made a count during the Thirty Years’ War.

ANSWER: Johann **Tserclaes**, Graf von **Tilly** (accept either underlined answer as well as Count of **Tilly**)

23. This author created the vainglorious Aristabalus Bragg in a work about the Effingham family’s return to New York, *Home as Found*. He described the romance of Lucy Hardinge in *Afloat and Ashore*, a story that would be continued in *Miles Wallingford*. He wrote of monkeys traveling in Europe and set another work in 16th Century Bavaria. In addition to *The Monikins* and *The Heidenmauer*, he wrote about politics in *A Letter to his Countrymen* and *The American Democrat*, while his trilogy about the Anti-Rent War included the novel *The Chainbearer*. Characters created by this man include Harvey Birch, in a story of Revolutionary War intrigue, as well as Judith Hutter, who appears in a series of novels that also features Cora Munro, the evil Magua, and the noble Uncas. For 10 points, identify this author of *The Spy* who chronicled the adventures of Natty Bumppo in the *Leather-Stocking Tales*.

ANSWER: James Fennimore **Cooper**

**Editors Round 9 Bonuses**:

1. It satirized Lord John Hervey as the effeminate Sporus and characterized Joseph Addison as the “jealous Atticus,” for 10 points each:

[10] Identify this 1735 poem that compares the poet’s literary accomplishments with those of his contemporaries and was written as a dialogue between the speaker and the titular physician.

ANSWER: **“Epistle to Dr. Arbuthnot”**

[10] The “Epistle to Dr. Arbuthnot” was written by this author of “Essay on Man” and *The Dunciad*.

ANSWER: Alexander **Pope**

[10] In this Pope poem, which ends with the couplet, “Life’s idle business at one gasp be o’er/The Muse forgot, and thou beloved no more,” the speaker recounts the title figure’s decision to commit suicide for love.

ANSWER: **“Elegy to the Memory of an Unfortunate Lady”** or **“Verses to the Memory of an Unfortunate Lady”**

2. The *lin*-4 and *let*-7 examples of this class of molecules control developmental timing in *C. elegans*. FTPE:   
[10] Name these small endogenous molecules, which are 21 to 24 nucleotides in length, whose regulatory role often involves pairing with 3’ UTRs of mRNAs.

ANSWER: **microRNA**s or **miRNA**s  
[10] MicroRNAs localize to RISC complexes, which contain Argonaute-like proteins as well as FMR1. This disorder, the most common cause of inherited mental retardation, results from the expansion of a CGG repeat within the FMR1 gene.

ANSWER: **Fragile X** syndrome or disorder or **Martin-Bell** syndrome  
[10] Argonaute-like proteins, which bind miRNAs, contain a PAZ domain, which is a modified form of this five-stranded beta-barrel folding motif. This nucleic-acid-binding motif is found in the single-stranded DNA binding domains of proteins like BRCA2 and RPA.

ANSWER: **OB**-fold or **oligosaccharide-binding** fold or **oligonucleotide-binding** fold

3. This composer drowned while returning from the U.S. when the liner *Sussex* was torpedoed by a German U-Boat, for 10 points each:

[10] Identify this composer of seven *Valses Poeticos*, a set of twelve *Spanish Dances*, and a notable piano prelude for his opera *Maria del Carmen*.

ANSWER: Enrique **Granados**

[10] Also known by the name “Dandies in Love,” this Granados work, a piano suite in four sections that works hard to translate the rhythms of the flamenco guitar to keyboard, takes its inspiration from a series of prints by the namesake artist.

ANSWER: ***Goyescas****, pieces in 2 books for piano, H 64. DLR 2:4*

[10] This composer, Granados’ fellow countryman, also helped popularize the use of Spanish folk music in such works as *Pepita Jimenez* and the suite *Iberia*.

ANSWER: Isaac **Albeniz**

4. As Chief of Staff of the Army he directed troop movements following the Marco Polo Bridge Incident. For 10 points each:

[10] Name this man who became prime minister of Japan four years later and who, nine years later in 1948, was executed for war crimes.

ANSWER: **Tojo** Hideki

[10] Tojo’s transition from military to government came with his appointment as Army Minister in the second and third terms of this man, Tojo’s predecessor as prime minister.

ANSWER: **Konoe** Fumimaro

[10] Tojo had been a vocal opponent of this attempted coup in 1936 that had sought to overthrow the government but not Emperor Hirohito.

ANSWER: **February 26 Incident** or 2/26 Incident (accept equivalents for incident)

5. This name identifies several religious figures including a temple scribe in the *Book of Nehemiah* and a founder of the Zealots alongside Judas of Galilee, for 10 points each:

[10] Identify this moniker that applies to a son of Ahitub, the Jewish High Priest during the time of David.

ANSWER: **Zadok** or **Zadoq**

[10] Zadok’s exploits during the rebellion of Absolom are recounted in this book of the Hebrew Bible.

ANSWER: Book of ***Samuel***

[10] Some scholars believe that Zadok was actually a member of this Canaanite tribe who inhabited Jerusalem before its conquest by the Israelites.

ANSWER: **Jebusite**(s) or **Yevusi**

6. Divided into three large sections, in its chapter “S.S. Malone,” the author recalls his voyage to Africa, while “Literary Quarrel” focuses on his rivalry with Zora Neale Hurston over the staging of their collaboration *Mule Bone*, for 10 points each:

[10] Identify this 1940 autobiography that begins with its author, then a 21 year old man, throwing all of the books he had at Columbia into the ocean before he heads to Europe.

ANSWER: ***The Big Sea***

[10] *The Big Sea* was written by this man whose poetry collections included *Fine Clothes to the Jew* and *The Weary Blues*.

ANSWER: Langston **Hughes**

[10] In the chapter “Harlem Literati,” Hughes recalls his encounters with this fellow author who was dissatisfied with the composition of his *Infants of the Spring* and *The Blacker the Berry*.

ANSWER: Wallace **Thurman**

7. For 10 points each, some questions about matter in magnetic fields.

[10] When charged particles are placed in a magnetic field, they exhibit these discrete energy eigenvalues that are odd half-integer multiples of the cyclotron frequency.

Answer: **Landau levels**

[10] In two-dimensional electron systems with an applied magnetic field, this refers to the observation of conductivities proportional to integer multiples of the fundamental quantity e squared over h-bar.

Answer: integer **quantum Hall effect**

[10] Originally observed in bismuth, this is a characteristic oscillation of magnetization in metals as a strong applied magnetic field is varied at low temperatures.

Answer: **de Haas - van Alphen** effect [accept **dHvA** effect]

8. This leader famously exclaimed “Vae victis!” after the conquered Romans pointed out that the scales he used to weigh his tribute were fixed. For ten points each:

[10] Name this leader of the Senones, the Gallic tribe that sacked Rome circa 390 BCE.

ANSWER: **Brennus**

[10] This man, who had been exiled to Ardea for supposedly stealing Etruscan gold from the treasury, supposedly emerged from his seclusion to drive Brennus and the Senones out of the Italian peninsula, though the story is disputed.

ANSWER:Marcus Furius **Camillus**

[10] Camillus is also known for several victories over this group, whose leaders included the Roman traitor Coriolanus. They often allied themselves with the Aequi.

ANSWER: **Volsci**ans

9. Name these things about attempts to circumvent the Hays Code, Hollywood’s censorship guidelines in place from 1930 to 1968, For 10 points each:

[10] At the time of its 1946 release this movie’s kiss on a Rio balcony between Cary Grant and Ingrid Bergman was the longest in history. Hitchcock skirted the Hays Code by intercutting lip-locking with lots of whispers and necking.

ANSWER: ***Notorious***

[10] His films in the 1950s repeatedly challenged the code, including his adaptation of Nelson Algren’s *The Man with the Golden Arm* and his earlier *The Moon is Blue*, the first Hollywood film to use the word “virgin.”

ANSWER: Otto **Preminger**

[10] Rod Steiger plays a Holocaust survivor in this Sydney Lumet film that is largely credited with beginning the end of the Hays Code after it received an approval certificate despite the presence of bare breasts and a sex scene.

ANSWER: *The* ***Pawnbroker***

10. This epic begins with the speaker’s invocation to Parvati and Shiva, and features such episodes as the subjugation of the Kambojas and the battle with the White Huns, for 10 points each:

[10] Identify this work that tells the story of Dileepa and traces the title figure’s lineage from Surya to Rama.

ANSWER: ***Raghuvamsa*** or ***Dynasty of Raghu***

[10] The *Raghuvamsa* was written by this classical Indian dramatist best known for his play *The Recognition of Shakuntala*

ANSWER: **Kalidasa**

[10] This 114 stanza poem by Kalidasa recounts the tale of a lovesick Yaksha who is exiled to the Vindhya Mountains but manages to communicate his thoughts to his wife via the title entity.

ANSWER: ***Meghaduta*** or ***The Cloud Messenger***

11. Name some things that you might use when designing a drug, for 10 points each.

[10] In this technique, nucleic acid aptamers are synthesized and bound to a ligand, then unbound aptamers are eluted. Repeating this cycle in increasingly stringent binding conditions leaves only the most tightly-binding aptamers.

ANSWER: **SELEX** or **systematic evolution of ligands by exponential enrichment**

[10] To cross the plasma membrane and other biological barriers, drugs must have this property, which is also exhibited by molecules like phenylalanine, valine, and alkanes; however, this property can also affect bioavailability by causing molecules to be insoluble in aqueous solutions.

ANSWER: **hydrophobic** or **lipophilic**

[10] This is the term for the structural backbone on which the drug moiety, or pharmacophore, is situated. Switching pharmacophores between different ones of these is termed “hopping” and is sometimes done to circumvent patents on the original structure.

ANSWER: molecular **scaffold**

12. Marcus Croly’s biography of this political figure was released in 1912, eight years after his death, for 10 points each:

[10] Identify this key Republican adviser who worked with the National Civic Federation to conciliate labor strife, but may be best known for nationalizing the GOP campaign and helping the party win the presidency in 1896.

ANSWER: Marcus “Mark” Alonzo **Hanna**

[10] One of Hanna’s primary campaign contributors was this entrepreneur who made a fortune in steel after implementing the Bessemer process at his mills near Pittsburgh.

ANSWER: Andrew **Carnegie**

[10] The Ohio State Legislature elected Hanna to the Senate to take this man’s place, after he was appointed as McKinley’s Secretary of State in 1897.

ANSWER: John **Sherman**

13. It was originally used to describe phenomena that could be grouped into “original extrinsic” and “original intrinsic factors” in a work by Herbert Spencer entitled *Principles of Sociology*, for 10 points each:

[10] Identify this term which was subsequently deployed by the author of such works as *Configurations of Culture Growth* and *Ishi in Two Worlds* to represent a large entity or domain occupied by the study of culture.

ANSWER: the “**superorganic**” [accept **superorganism**]

[10] The “superorganic” was associated with this Anthropologist whose work primarily focused on the culture of Native American tribes and is credited with developing the term “culture area.”

ANSWER: Alfred Louis **Kroeber**

[10] In 1917 this Anthropologist penned “Do we need a Superorganic?,” an essay that challenged Kroeber by positing the idea of “experiential insolvability.” This man may be better known for a linguistic relativity hypothesis with Whorf.

ANSWER: Edward **Sapir**

14. His 1871 novel about the building of a paper mill came under attack by the Communist government, while another work depicts a group of disbelieving icon painters who witness a miracle, for 10 points each:

[10] Identify this Russian author of such works as *At Daggers Drawn* and *The Sealed Angel*.

ANSWER: Nikolai Semenovich **Leskov**

[10] This Leskov novella traces Sergei Filipych’s adulterous involvement with the fatalistic title figure, a younger kept woman named Katerina Ismailovna.

ANSWER: **“Lady Macbeth of Mtsensk”**or **“Lady Macbeth of Mtsensk District”** or **“Ladi Makbet Mtsenskogo uezda”**

[10] This Leskov story, which centers on a giant priest named Ivan and his picaresque adventures, includes scenes featuring battles with Tartars and a doomed love with the Gypsy Grusha.

ANSWER: ***The Enchanted Wanderer*** or ***The Enchanted Pilgrim*** or ***Ocharovanny strannik***

15. First published in the collection *Language, Mind, and Knowledge*, this work introduced a thought experiment instantiated by the distinction between “wide” and “narrow” content, for 10 points each:

[10] Identify this 1975 paper which argues that a psychological state does not determine extension through the discussion of a number of scenarios that take place on a fictional planet its author dubbed “Twin Earth.”

ANSWER: “**The Meaning of “Meaning”**”

[10] “The Meaning of “Meaning”” was written by this American philosopher whose other works include *Reason, Truth, and History*.

ANSWER: Hilary **Putnam**

[10] Much of the latter part of Putnam’s essay is taken up with a consideration of this term introduced by Quine in *Word and Object*; it defines what occurs when a linguist attempts to interpret a new language without clues, either from shared culture or cognates.

ANSWER: “**radical translation**” (prompt on “translation;” accept “**indeterminacy of translation**”)

16. There are many statistical techniques measuring goodness of fit. Name these, for 10 points each.

[10] This test, pioneered by Pearson, is named for a quantity computed as the sum of the square of the difference between observed and expected quantities, divided by the variance.

ANSWER: chi-square test

[10] This test relies on the maximum difference between a cumulative distribution function and the actual observed distribution function in data.

ANSWER: Kolmogorov-Smirnov or K-S test.

[10] Also called relative entropy and named for two US mathematicians, it gives the difference in two distributions S and T as a sum of the probability of events E given T times the log of the ratio of probabilities of E given T versus S.

ANSWER: Kullback-Leibler divergence [or Kullback-Leibler distance]

17. Name these British landscapists, For 10 points each:

[10] Henry Fuseli was a big admirer of this painter of *The Leaping Horse*, *The Lock at Dedham*, and *The Hay Wain*.

ANSWER: John **Constable**

[10] He explained his “blot” technique in his influential treatise *A New Method of Assisting the Invention in Drawing Original Compositions of Landscape*. Among his pupils were his son John Robert, also a noted landscapist, and the author William Beckford.

ANSWER: Alexander **Cozens**

[10] His landscapes proved unsuccessful so he moved onto illustrating the works of Goldsmith and Smollett, though he remains best known as a caricaturist as seen in his depictions of Johnny Newcombe and his *Three Tours of Dr. Syntax*.

ANSWER: Thomas **Rowlandson**

18. Name these things about early English explorers, for 10 points each:

[10] He was buried in a lead coffin somewhere near Panama but not before circumnavigating the globe aboard the Golden Hind

ANSWER: Francis **Drake**

[10] He documented the travels of all the English explorers of his time in his three-volume *The Principal Navigations, Voyages, Traffics, and Discoveries of the English Nation* published in 1598.

ANSWER: Richard **Hakluyt**

[10] He made at least four voyages to Russia starting in 1558, doing such things as meeting Ivan the Terrible and making some of the first detailed maps of the area.

ANSWER: Anthony **Jenkinson**

19. This giant lived near Kechrae, near the Isthmus of Corinth, for 10 points each:

[10] Identify this bandit who would kill his victims by bending down a pair of trees, tying the person to the branches of trees, and then letting go thus producing a force that would rip that person in half.

ANSWER: **Sinis**

[10] After killing Sinis, Theseus found and ravished this woman, the” pine bender’s” daughter. She would later bear a child named Melanippus.

ANSWER: **Perigune**

[10] Before killing Sinis, Theseus had defeated this son of Hephaestus and Anticleia in Epidaurus by using his own enormous bronze club against him.

ANSWER: **Periphetes**

20. Among other things, this man pioneered developmental psychology with his diary study, “A Biographical Sketch of an Infant.” For 10 points each:

[10] Name this thinker who also published an important book on the universality of emotion, “The Expression of Emotions in Man and Animals.” He also wrote *The Descent of Man.*

ANSWER: Charles **Darwin**

[10] Darwin’s work on facial expressions went unnoticed until popularized by this Berkeley psychologist who argued for basic emotions, studied the Fore tribe and developed the Facial Action Coding System.

ANSWER: Paul **Ekman**

[10] Ekman and Carroll Izard both studied under this philosopher who developed Affect theory and wrote Affect Imagery Consciousness.

ANSWER: Silvan **Tomkins**