**ACF Nationals 2010**

**Packet by Harvard A**

1. The most famous political cartoon about this event depicts a man being pulled from under a bed by two men in red coats. One person associated with this event had court-martialed Joseph Short following the seizure of his ship, the *Porpoise.* Others associated with this event included John Blaxland and Richard Atkins, and it saw resistance along the Hawkesbury River after the storming of the Government House. Following this event, Lachlan Macquarie was placed in charge, and this event was led by George Johnson and John Macarthur. Resulting in the disbanding of the New South Wales Corps, for 10 points, identify this event in which William Bligh was deposed as governor in Australia in 1808, which takes its name from the regulation of an alcoholic beverage.

ANSWER: **Rum Rebellion**

2. In this novel a woman gives her life savings to men guarding a coffin meant to be buried in the Tomb of the Unknown Soldier after mistakenly believing the corpse is her son. A priest is sent to encourage the main character to escape from jail, but commits suicide after being shamed by the protagonist’s humility. At the end of this novel, “The Runner” is attacked by a mob after he interrupts an official funeral by throwing the protagonist’s medal at the caisson. The protagonist of this novel is betrayed by the soldier Polchek right before Pierre Bouc denies him three times. At the beginning of this novel both the German and French regiments miraculously refuse to attack, leading “The Marshall” to execute the main character for instigating peace. For 10 points, name this novel by William Faulkner that retells Christ’s passion through the ordeals of a French corporal during World War One.

ANSWER: *A* ***Fable***

3. Equations with a solution in the reals and in the p-adics for each prime p have a rational solution by the Hasse principle, an application of this statement. The decomposition of the finitely generated modules of a Dedekind domain into the direct sum of submodules is managed by this statement. The Good-Thomas algorithm for the fast Fourier transform uses this statement on the output, in conjunction with a mapping called Ruritanian on the input, to reindex data. An extension of this statement to principal ideal domains gives an isomorphism between a quotient ring and a product of quotient rings. For 10 points, name this statement that guarantees an integer solution to a set of congruence relations if the moduli are pairwise relatively prime.

ANSWER: **Chinese remainder** theorem

4. One holder of this office responded to Lord Derby by authoring a namesake note demanding political reform in Bosnia and Herzegovina. This position was held by Karl Buol until he was fired in 1859, while another holder resigned when the Sixtus Affair was revealed. It was also held by Count Cobenzl until he was dismissed after the Battle of Austerlitz. Apart from being occupied by Julius Andrassy, this office was held by a man who boasted “we shall shock the world with our ingratitude," Felix von Schwarzenberg. The most famous holder of this office promoted the Carlsbad Decrees and ran the Concert of Europe. For 10 points, name this office held by Klemens von Metternich, which involves being the chief diplomat of a certain country.

ANSWER: **Foreign Minister** of **Austria** [accept: **Osterreich**ischer **Minister des Ausseren**; **Osterreich**ischer **Aussminister**]

5. In this work a character’s wife attempts to enter society by joining the “Administrative Committee of the Crèche *Bethlehem*” in charge of decorating the church’s nativity scene. That character is later disgraced when her husband, Charles Nicholas, makes a donation of shares in an illegitimate insurance company named Triton. In this novel, the elderly actor Falander’s affair with a sixteen-year-old girl disgusts Rehnhjelm. Later that same girl, Agnes, becomes the protagonist’s lover after changing her name to Beda Petterson. The main character of this novel discovers the painter Sellen has become fashionable and the philosopher Olle Montanus has committed suicide when he returns to Stockholm to learn the fate of his former colleagues who once met at the titular café. For 10 points, name this novel centering on the journalist Arvid Falk, a work by August Strindberg.

ANSWER: *The* ***Red Room*** (accept ***Roda Rommet***)

6. This composer wrote a *Canto Serioso* for horn and piano and dedicated one of his works for chorus and orchestra to the “Young Merchant’s Society.” One of this man’s works ends with a series of variations on his hymn “My Jesus, make my heart to love thee.” That work, in which each part was written to reflect the personality of the original performer, is a wind quintet. He used only nine instruments in the “Humoreske” movement of his final symphony, while a visit to the Acropolis inspired a work representing the sun rising over the Aegean, the *Helios Overture*. He featured a wordless vocal solo for baritone and soprano in the “Andante pastorale” second movement of his *Sinfonia Espansiva*. This composer of *Sinfonia Semplice* created a symphony that features a “duel” between two sets of timpani. For 10 points, name this Danish composer of a symphony nicknamed *The Inextinguishable*.

ANSWER: Carl **Nielsen**

7. One emperor from this dynasty was married to Fu Hao, and its early portion is coextensive with the “Erligang Culture." One ruler of this dynasty infamously built an artificial tree with sausages hanging from its branches, which he put on an island in the middle of a swimming pool of wine. Its founder allegedly read a prophecy on a turtle shell and fought eleven wars. The previously-mentioned ruler was said to have married a fox demon and was blamed for this dynasty losing the Battle of Muye to its successor, since he allegedly lost the Mandate of Heaven. Founded by Emperor Tang, the artifacts associated with this dynasty include oracle bones and the first known Chinese writing. It may have overthrown the Xia Dynasty, and was definitely succeeded by the Zhou. For 10 points, name this first historically-attested Chinese dynasty.

ANSWER: **Shang** Dynasty

8. In one of this director’s movies the daughter of Victor Hugo claims she is married to Lieutenant Pinson to ruin his engagement. In another film the title character uses her seductive powers to engineer the deaths of the five men responsible for the murder of her love. In yet another film Alphonse has an affair with Julie Baker after his fiancée leaves him for a stunt man while filming the melodrama *Meet Pamela*. His major work climaxes with Catherine driving a car off a broken bridge to kill herself and one of the title characters. It followed his debut film about a teen protagonist who escapes from a work camp and runs toward the sea after being imprisoned for stealing a typewriter. For 10 points, name this director of *The Story of Adele H.*, *The Bride Wore Black*, *Day for Night*, *Jules and Jim*, and *400 Blows*.

ANSWER: Francois **Truffaut**

9. One of this author’s works begins with a series of “letters to the editor” decrying the exploits of a group of juvenile thieves. In another work, the Nobel Laureate James Levensen hires Fausto Pena to research the writer Pedro Archanjo, who leads the titular university. In another novel the businessman Mirko Stefano tries to get Ascanio elected mayor so he can extract titanium dioxide from a town, while the title character of that novel seduces her own nephew Ricardo. In addition to writing the aforementioned *Captains of the Sands*, *Tent of Miracles* and *Tieta, the Goat Girl*, this author created the character of Dionisia, who helps conjure the spirit of the dead gambler Vadinho, as well as Manuel of the Jaguars who struggles with Mudinho Falcao for political control of Ilheus. For 10 points, name this author, who wrote about Nacib the Arab’s love for the titular girl in *Gabriela, Clove, and Cinnamon*.

ANSWER: Jorge **Amado**

10. A debate among Nussbaum, Wilkinson, Laurin, and Reisz ended with the conclusion that the ancestral member of this group of organisms lacked EER; a central issue in this debate was the classification of caecilians. Early members of this group of organisms could be distinguished from their ancestors by the presence of eleventh and twelfth cranial nerves and the astralagus bone in the ankle, and the Joggins fossils indicate that this group of organisms diverged into the synapsids and sauropsids. Another synapomorphy of this clade contains several sacs, including the allantois, the chorion, and its namesake sac, and its development permitted vertebrates to expand further inland. For 10 points, name this clade that encompasses most living terrestrial animals and which is named for a structure which, in humans, is a fluid-filled membrane surrounding the fetus.

ANSWER: **amniotes** [accept word forms like **amniotic**, **amniota**, etc.]

11. A number of chapters in this work promote the importance of “moderation” and advocate the benefits of “incorporation.” It concludes with a debate over the impact of “tacit faith” on the meaning of consent. This treatise quotes Seneca on the importance of a people’s spirit in determining whether states are immortal. Another section considers Pomponius’ definition of the term “postliminium” and notes that in the present day “ships are not reckoned among the things recoverable.” The third and final section features a chapter that considered the idea of “solemn” or “just” conflict and advocated the idea of *pacta sund servanda*: that treaties are to be respected in order to promote international stability.For 10 points, identify this 1625 work, the masterpiece of Hugo Grotius.

ANSWER: ***On the Law of War and Peace*** or ***On the Laws of War and Peace*** or ***The Law of War and Peace*** or ***De Jure Belli ac Pacis***

12. According to legend, this leader dreamed that he saw the prophet Muhammed as a constellation after having a religious conversation with Abu Sufyan. He had the patriarch Sergius draft the Ecthesis, affirming his belief in monothelitism. This victor at the Third Battle of Issus came to power as a result of a coup against the emperor Phocas. He occupied royal residence at Dastgerd, and supposedly returned with the true cross from a campaign in Persia. This father of Constantine III was also victorious at the Battle of Nineveh over Chosroes II, though he'd later be defeated at the Battle of Yarmuk by Umar. For 10 points, identify this Byzantine emperor in power from 610 to 641 AD, who fought a protracted war with the Sassanid Empire.

ANSWER: **Heraclius**

13. A type of magnetoresistive RAM uses a spin-polarized current to reorient the magnetization of a layer of a TMR element; that type is called spin this transfer. A stepper motor has different “pull-in” and “pull-out” values of this. In 1939 Richard Beth measured this exerted on a doubly-refracting plate by polarized light. The cogging type of this is minimized in motors and results from the interaction between rotor and stator magnets. Four strain gauges in a Wheatstone bridge configuration are called a “load cell” or a this “transducer,” which is one component of a quality-control device that measures this quantity. Precession is called “gyroscopic” if induced by this quantity. For 10 points, name this cross product of displacement with force, equal to the time derivative of angular momentum, the rotational analogue of force.

ANSWER: **torque**

14. A contemporaneous Croatian artist Giorgio Glovocic mentioned a third version of this work painted on ivory but now lost. In an essay on this painting art historian Steven Mansbach argued that the most prominent figure represents Philip II, coinciding with the interpretation of it as a depiction of suffering caused by Spain. It portrays a rolling green landscape in the back, a city scene on the left, and a harbor scene on the right, where slabs of red stone are being delivered. On the bottom left are many slabs of grey stone amidst which several stonemasons kneel before the procession of King Nimrod. Their work in progress was painted to parallel the Coliseum and takes on a spiral shape and is the title structure. For 10 points, name this painting by Bruegel depicting a biblical structure that man tried to build to reach as high as heaven.

ANSWER: *The* ***Tower of Babel***

15. In one story, a goddess was persuaded by a fox to sleep with this figure, and she subsequently fathered eight gods who could cure eight different body parts. This deity was sometimes known as the “Lord of semen,” and in one story his semen caused seven different types of plants to sprout from the earth. This figure asked a sun god to make footprints in the ground so that he could fill them with water, giving life to a barren island called Dilmun. This figure saved humanity by warning Atrahasis of a coming flood and, in another story, the misfortunes of humans were a result of a contest between this figure and Ninhursag. This figure causes a confusion of tongues in a speech to Enmerkar, and he was sometimes represented as half-goat and half-fish. Commonly called the “Lord of Abzu,” this figure ruled from the city of Eridu and in one story was seduced by the goddess Inanna. For 10 points, identify this Sumerian deity of knowledge, fertility, and water, who was later identified with the Babylonian Ea.

ANSWER: **Enki** [accept **Ea** early]

16. His son recently compiled a volume of his aphorisms, including, “obsolescence is the moment of superabundance” in The Book of Probes. His PhD thesis described the role of grammar, logic and rhetoric in the work of Thomas Nashe, while in later work with Wilfred Watson he examined the interrelationship of clichés and archetypes more broadly. In one of his works, he enumerated the ten thunders of Finnegans Wake to outline a cyclical history with touchstones like “clothing as weaponry.” In *The Global Village,* he categorized technological effects into the “tetrad” of enhancement, obsolescence, retrieval, and reversal. In works like *Laws of Media,* he contrasted different forms of communication as “hot” and “cold” based on whether they target a single sense and as high or low based on how much viewer-participation is required. For 10 points, name this Canadian who wrote *The Gutenberg Galaxy* and conceived of how “the medium is the message.”

ANSWER: Marshall **McLuhan**

17. Along with William Vans Murray and William Richardson Davie, this man was one of the three commissioners who negotiated the Treaty of Mortefontaine. He was accused of fastening “chains of slavery” on children with a “birth-duty of allegiance” for his decision that Isaac Williams could not renounce citizenship without the consent of the community. John Taylor of Caroline was horrified at a secession proposal produced by this man and Rufus King. He wrote the *Letters from a Landholder* urging adoption of the Constitution, chaired the conference committee for the Bill of Rights, and was the chief author of the Judiciary Act of 1789. For 10 points, name this Connecticut Federalist and third Chief Justice of the United States.

ANSWER: Oliver **Ellsworth**

18. This thinker stressed the incompatibility of the theater and the house of worship and theorized on the Apostolic origin of churches. This man authored *Against the Scorpions,* an attack on Gnosticism, and his other writings include the *Prescription against Heretics*. This thinker openly espoused Traducianism, or the belief that new souls are created naturally by the reproductive process, not directly by God. This man preceeded St. Cyprian as the most notable theologian from Carthage. He coined the terms “New Testament”, “Old Testament”, and “trinity”, but he eventually left the church to became a Montanist. For 10 points, name this early Christian theologian, the first to write in Latin.

ANSWER: **Tertullian** or Quintus Septimus Florens **Tertullianus**

19. The speaker of this poem compares a particular entity to “hues and harmonies of evening” and “memory of music fled” before asserting “that for its grace [it] may be / Dear, and yet dearer for its mystery.” In the fifth stanza the speaker remembers he “called on poisonous names with which our youth is fed” earlier in life “while yet a boy [he] sought for ghosts.” This poem’s final stanza begins “The day becomes more solemn and serene / When noon is past” before the speaker implores the title entity to lets its power “to my onward life supply / Its calm”. The speaker of this poem addresses the titular ineffable quality in the opening lines, “The awful shadow of some unseen Power / Floats though unseen amongst us.” For 10 points, name this poem by Percy Bysshe Shelley.

ANSWER: “**Hymn to Intellectual Beauty**”

20. Peri-acylated gossylic versions of these compounds are potent inhibitors of lactate dehydrogenase, explaining their antimalarial activity. This compound may be used as the acylating agent in a variant of the Friedel-Crafts reaction that produces a ketimine intermediate. Under nickel catalysis aryl examples of these compounds will add across triple bonds, and nucleophilic addition of an alcohol to one of these substances in the first step of the Pinner reaction produces imides. A condensation of these compounds named for Thorpe forms enamines. . Elementary syntheses of these substances may occur via nucleophilic substitution by cyanide ions, as in the Kolbe synthesis, and they may be prepared by reacting thionyl chloride, or other dehydrating agents, with amides. For 10 points, name this functional group, which contains a carbon triple-bonded to nitrogen.

ANSWER: **nitriles**

21. This man wrote two disquisitions to his contemporary John Riolan, who attempted to refute his views on several occasions, and this man was backed in letters by Paul Marquard Schlegel. He examined the reproductive organs of male and female deer in a piece entitled “Of the manner, according to Aristotle, in which a perfect and fruitful egg is produced.” In that work, *Essays on the Generation of Animals*, he uses the development of a hen’s egg to refute the prevailing notion of “preformation.” He studied under Hieronymus Fabricius at the University of Padua. For 10 points, name this man who formulated a theory of circulation of blood through the body, as the court physician to King Charles I.

ANSWER: William **Harvey**

22. A character in this work naively argues he wants a motorcycle because it will validate him as a messenger to rich people in hotels. One character in this play is nicknamed “Paper Doll” for his singing, and is later kissed by the protagonist in an attempt to prove he is gay because of his other nickname “Blondie.” The main character is angered to learn that some relatives have moved into Mrs. Dondero’s apartment. Later two officers take away a man when he cannot name what street he was born on in Philadelphia. The lawyer Alfieri acts as the narrator and also pays one character’s bail allowing him to get married and avoid deportation. The protagonist is infuriated by his niece Catherine’s decision to marry Rodolpho and at the end of this play he is stabbed by Marco for reporting Rodolpho and Marco as illegal immigrants. For 10 points, name this play about Eddie Carbone written by Arthur Miller.

ANSWER: *A* ***View from the Bridge***

23. Its T664P mutant is known as the “O-helix mutant,” while the substitution of phenylalanine for valine at position 667 promotes chain termination by this protein. A commonly used purification approach for this enzyme involves a one-hour incubation at 75 degrees followed by cation exchange chromatography. This enzyme may be used in a non-cyclic process to prepare inserts into Topo-linked vectors, and an eponymous probe system relies upon the separation of fluors from quenchers by this enzyme’s 5’ to 3’ exonucleolytic activity. Unlike similar proteins, this enzyme leaves overhanging As, which is useful in the aforementioned TA cloning process but makes it a worse choice for blunt-end cloning than Pfu. For 10 points, name this PCR reagent, a high-fidelity polymerase derived from *Thermus aquaticus*.

ANSWER: **Taq** polymerase

**Harvard Bonuses**:

1. This physical effect occurs when a neutral particle travels faster than light through a dense dielectric and emits a coherent cone of microwaves or radio waves. For 10 points each:

[10] Name this phenomenon, wherein charged secondary showers with an anisotropic distribution of charge are produced. The negative charge excess is partly due to electrons pulled from surrounding material into the shower.

ANSWER: **Askaryan** effect

[10] Charged emissions also occur in this effect: namely, an electronic transition to fill an inner-shell vacancy in some atom causes the emission of an electron. It shares an eponym with a cosmic ray observatory in Argentina.

ANSWER: **Auger** effect

[10] The Auger effect was actually discovered by Lise Meitner. Meitner was taught by this physicist, who names the distribution of gas particle velocities with Maxwell.

ANSWER: Ludwig Eduard **Boltzmann**

2. Name these royal portraitists, for 10 points each:

[10] His portraits of the Dauphin Francois and the Princess Charlotte are surpassed by his oil on wood portrait of their father Francis I.

ANSWER: Jean **Clouet**

[10] Views in “Three Angles,” with “Queen Henrietta Maria,” and in “Hunting Dress” are just some of the many portraits he executed for Charles I.

ANSWER: Anthony **van Dyck**

[10] After being made painter in ordinary to William IV, he completed his two major royal portraits – *The Entrance of George IV at Holyroodhouse* and *The First Council of Queen Victoria*.

ANSWER: David **Wilkie**

3. Identify some things about the Peloponnesian War, for 10 points each.

[10] This 405 BC battle near the Hellespont marked the end of the war. The name of this place means “goat river” and the Athenians under Conan were crushed by the Spartans under Lysander.

ANSWER: Battle of **Aegospotami**

[10] This battle following earlier battles at Sphacteria and Delium saw the deaths of the generals on both sides when both Cleon and Brasidas were killed.

ANSWER: Battle of **Amphipolis**

[10] In the year following the Athenian triumph at Abydos an Athenian force under Alicibiades, Thrasybulus, and Theramenes handily defeated a Spartan fleet under Mindarus at this battle

ANSWER: Battle of **Cyzicus**

4. One character gets a chance to write a screenplay after winning a round of golf with the movie producer Saul. For 10 points each;

[10] Name this 1980 play that ends when Austin tries to strangle his brother Lee.

ANSWER: ***True West***

[10] This American playwright, who described Hoss’ duel with Crow in *The Tooth of the Crime*,wrote *Curse of the Starving Class* and *True West*.

ANSWER: Sam **Shepard**

[10] *Curse of the Starving Class* and *True West* are part of Shepard’s “Family Trilogy” along with this play, in which Dodge brings a curse upon his family after drowning his wife’s Halie’s illegitimate baby.

ANSWER: ***Buried Child***

5. As described by its composer, this 1892 work’s scherzo was meant to evoke the legendary folk spirit “Cousin Michel,” an idealistic dreamer, for 10 points:

[10] Identify this work in C minor, it was initially rejected by conductor Hermann Levi, prompting three years of revisions. Composed of four movements, this work’s intense climaxes and charged silences at one point earned it the nickname “the Apocalyptic.”

ANSWER: *Symphony* ***No. 8****, in C minor*

[10] Before completing his *Symphony No. 8*, this great admirer of Wagner also composed a Symphony No. 4 in E

flat major, known as “the Romantic.”

ANSWER: Anton **Bruckner**

[10] This Bruckner choral work, which was completed in 1884, opens aggressively in C major and ends in an apotheosis built entirely on the words, “In Thee, Lord, I have trusted. Never let me be confounded.”

ANSWER: ***Te Deum***

6. Examples include the syntheses of brevetoxins and other polyether ladder compounds by dinoflagellates, as well as the Banert reaction. For 10 points each:

[10] Give this term for a series of reactions which proceeds rapidly through unstable intermediates. They are typically intermolecular and lend themselves well to one-pot syntheses.

ANSWER: **domino**-coupling reaction or **cascade** reaction or **tandem** reaction

[10] In this cascade, amino acids interact with sugars to produce nitrogenous and sulfurous aroma compounds, as well as intermediates like Amadori compounds and deoxyosones. These reactions are responsible for the browning and characteristic aromas of cooked food.

ANSWER: **Maillard** reactions

[10] One of the reactions within the Maillard reactions is this rearrangement, in which a ketone undergoes oxidation to become an ester. mCPBA is often used as a catalyst for this reaction.

ANSWER: **Baeyer-Villiger** rearrangement or **Baeyer-Villiger** oxidation

7. Set in Genoa, it ends at a ball where a group of masked plotters, including the double crossed Pietro, succeed in surrounding the ambitious Mendoza and depose him. For 10 points each:

[10] Identify this 1604 drama about the title figure, a Duke named Altofronto, who assumes the guise of a man named Malvole in order to exact revenge.

ANSWER: ***The Malcontent***

[10] *The Malcontent* was written by this British author of *Histriomastix* and *The Dutch Courtezan*.

ANSWER: John **Marston**

[10] In 1605 Marston collaborated with this author on the play *Eastward Ho*; this man’s own works include *All Fools*, *Bussy D’Ambois*, and notable translations of Homer.

ANSWER: George **Chapman**

8. The General Intelligence Division of the FBI was created to carry out these events, for 10 points each:

[10] Identify this set of 1919-1920 raids that targeted anarchists and communists in the United States, named for the Attorney General who ordered them.

ANSWER: **Palmer** Raids

[10] In 1919, Palmer put nearly 300 radicals on this ship, dubbed the “Soviet Ark”, and sent them to Bolshevik Russia. Emma Goldman was one of those on board.

ANSWER: *The* ***Buford***

[10] This committee of the House of Representatives existed from 1918-19 and investigated un-American activities. It’s named for a North Carolina Democrat, not a philosophical concept.

ANSWER: **Overman** Committee

9. This man’s first work, *Philosophy of Arithmetic*, was critiqued for its embrace of psychologism, for 10 points each:

[10] Identify this philosopher who turned away from psychologism in such later works as *Cartesian Meditations* and *Logical Investigations*.

ANSWER: Edmund **Husserl**

[10] This phenomenological procedure described by Husserl consists in a “setting aside” of background assumptions about the nature of reality.

ANSWER: **bracketing** (also accept “the process of **epoche**”)

[10] This concept, which was named by Franz Brentano and studied by Husserl, may be defined as the directedness or “aboutness” of mental states.

ANSWER: **intentionality**

10. Among his designs are the Mondadori Publishing headquarters and the Niteroi Art Museum. For 10 points each—

[10] Name this architect who collaborated with Le Corbusier to design the headquarters of the UN but was refused entry into the U.S. in 1953 to take up a position as dean of the Harvard Graduate School of Design.

ANSWER: Oscar **Niemeyer**

[10] Oscar Niemeyer is best known for the buildings he designed for this capital city of Brazil.

ANSWER: **Brasilia**

[10] An early design of Niemeyer’s was this complex of buildings in a suburb of Belo Horizonte, Brazil including the Church of São Francisco de Assis around an artificial lake.

ANSWER: **Pampulha** project

11. This leader's time in power saw student riots at Mendiola Bridge known as the First Quarter Storm. For 10 points each:

[10] Identify this leader, who was ousted from his residence at Malacanang Palace in 1986.

ANSWER: Ferdinand **Marcos**

[10] Ferdinand Marcos ruled this nation for 21 years when he conceded power to Corazon Aquino.

ANSWER: **Philippines**

[10] Marcos was ousted during this revolution, whose supporters adopted the anthem “Bayan Ko.” Eventually, Marcos and allies like Juan Ponce Enrile were escorted out of the country by the United States.

ANSWER: **People Power** Revolution [accept **EDSA** revolution]

12. Mobotu Sese Seko is represented in this novel as the “Big Man,” and other characters include Zabeth, and Yvette, with whom the main character has an affair. For 10 points each;

[10] Name this novel, which focuses on a storekeeper and his life in an African town at the title location.

ANSWER: *A* ***Bend in the River***

[10]This Trinidadian author, who wrote about the carpenter Popo in *Miguel Street* wrote *A Bend in the River*.

ANSWER: V. S. **Naipaul**

[10] Ramlogan tries to avoid paying the dowry of his daughter Leela to Ganesh, the title character of this Naipaul novel.

ANSWER: *The* ***Mystic Masseur***

13. Answer some questions about the sociology of crime, for 10 points each.

[10] This philosopher, who wrote *On Crimes and Punishments*, argued against the death penalty and the criminalization of suicide and advocated penal reform.

ANSWER: Cesare, Marquis of **Beccaria**-Bonesana

[10] Contrasting with Beccaria, this Italian prison doctor coined the term atavism to describe the pre-modern traits that criminals were thought to take, implying a biological theory of criminality.

ANSWER: Cesare **Lombroso**

[10] This man from Lyon founded the French criminological school in opposition to Lombroso, stressing the role of social as well as biological factors in crime. He wrote a famous study of the assassination of President Sadi Carnot.

ANSWER: Alexandre **Lacassagne**

14. Identify these advisers to English monarchs, for 10 points each:

[10] This alleged homosexual partner of James I quickly became a powerful figure in the Stuart court, and he infamously attempted to marry the future Charles I to a Catholic princess from Spain.

ANSWER: Duke of **Buckingham** (George **Villiers**)

[10] During the reign of Edward II, this family gained great influence over the King. They were overthrown with the help of Roger Mortimer and publicly executed.

ANSWER: **Despenser** family

[10] He served as Elizabeth I’s principal secretary from 1573 to 1590, and uncovered numerous Roman Catholic conspiracies against the queen, including those of Ballard, Savage, and Babington.

ANSWER: Francis **Walsingham**

15. This nerve, located in the superior orbital fissure, controls eye movements. For 10 points each:

[10] Name this third cranial nerve.

ANSWER: **oculomotor** nerve

[10] The oculomotor nerve has its origin in this part of the brain, which contains the tectum, tegmentum, and cerebral peduncles.

ANSWER: **mesencephalon** [or **midbrain**]

[10] This other cranial nerve also has its origin in the midbrain. It controls the muscle that depresses and intorts the eyeball. Unlike the other cranial nerves, it exits the dorsal aspect of the brainstem.

ANSWER: **trochlear** nerve

16. This volume includes such poems as “One Eye, Two Eyes, Three Eyes” presents the story of three sisters, who learn to live together despite their physical differences, for 10 points each:

[10] Identify this work written in the confessional style; it adapted fairy tales from the Brothers Grimm and was narrated by the voice of a” middle-aged witch.”

ANSWER: ***Transformations***

[10] *Transformations* was a work by this poet whose first poems like “Her Kind” were published in the collection *To Bedlam and Part Way Back*. Other collections by this poet include *45 Mercy Street* and *The Book of Folly*.

ANSWER: Anne **Sexton**

[10] Anne Sexton won the Pulitzer Prize in 1967 for this collection, a fictionalized memoir of her recovery from mental illness. It includes such notable pieces as “Little Girl, My String Bean” and “And One for My Dame.”

ANSWER: ***Live or Die***

17. These biblical names appear in chapters 38 and 39 of the Book of Ezekiel, where they identify a fierce ruler who threatens to invade Israel, as well as his Northern Kingdom, for 10 points each:

[10] Identify this similar sounding pair of names that also appear in Revelation 20:7 and symbolize a pair of enemies of the Kingdom of God.

ANSWER: **Gog** and **Magog**

[10] According to the Chronicles, Gog is a descendant of Reuben, the eldest of the twelve sons of this other biblical figure who wrestled an angel.

ANSWER: **Jacob**

[10] “Of Gog and Magog, Who are to Be Roused by the Devil to Persecute the Church, When He is Loosed in the End of the World” titles Chapter 11 of this work, which was written in the early 5th Century “against the pagans.”

ANSWER: ***The City of God*** or ***De Civitate Dei***

18. Questions about fluid dynamics, for 10 points each.

[10] He introduced a theory of turbulence in 1941 that was based on principles of small-scale isotropy, homogeneity, and scaling symmety. He is also known for work in classical mechanics with Arnold and Moser.

ANSWER: Andrey **Kolmogorov**

[10] Kolmogorov's namesake length scale is the energy dissipation to the negative one-fourth multiplied by the three-fourths power of this quantity, which measures the resistance of a fluid to flow.

ANSWER: kinematic **viscosity**

[10] At small values of this dimensionless quantity, flow is laminar. For flow through a pipe, it is given by velocity times the pipe diameter divided by kinematic viscosity.

ANSWER: **Reynolds number**

19. This figure's name means “sea foam” due to a story where he disappeared after walking into the ocean, and this figure was the father of Pachamama Mama Quilla. For 10 points each:

[10] Identify this creator figure and chief deity of the Inca.

ANSWER: **Viracocha**

[10] When Viracocha sent the great flood of Unu Pachakuti to destroy all of the people around Lake Titicaca, this legendary founder of the Inca escaped alongside his consort Mama Ocllo.

ANSWER: **Manco Capac**

[10] Viracocha was the father of this sun god. In some accounts he travels under the earth nightly and is some stories he is the father of Manco Capac.

ANSWER: **Inti**

20. Answer some questions about some NP-complete problems from computer science, for 10 points each.

[10] This problem involves finding a minimal subset S of a graph where every edge in the graph has an end in S.  It can be reduced the Clique or 3-SAT problem.

ANSWER: minimum **vertex cover**

[10] Heuristic but non-optimal approaches to solving this problem include Christofides algorithm and a greedy approach called the nearest neighbor algorithm.    
ANSWER: **traveling salesman** problem

[10] Another NP-complete problem is finding the maximum one of these for a graph.  The minimum one of these can be found with Karger's algorithm, and a set of edges of this name will split a graph into two graphs when all of the edges in the set are removed.   
ANSWER: **Cut** Edges