

1. One spectator claims he saw the corpse of a young woman shudder when this character bent over her coffin and another man says he saw this character walking hand-in-hand with the woman's spirit during her funeral procession. This character is appointed to carryout a task by Governor Belcher's administration, and he spills wine on the carpet at a wedding after seeing himself in a mirror. On his deathbed Mr. Clark of Westbury tries to pressure him to perform a task that leads him to yells "Why do you tremble at me alone?" This inhabitant of Milford and fiancée of Elizabeth has a notable feature that is described as a "type and a symbol" and that "no mortal eye will see it withdrawn." For 10 points, name this character who wears a black veil in a story by Nathaniel Hawthorne.

ANSWER: the **minister** [or Mr. **Hooper**; or Reverend **Hooper**]

001-11-30-10102

2. A chapter of this work claims that the main way invisible evil is expulsed from society is through the sacrificing of public scapegoats. Another chapter uses the "Law of Contagion" in order to describe the imitations societies use in practicing a "sympathetic" form of a key concept. In another section of this work, the author claims that pots filled with clumps of earth and vegetables is evidence that Adonis is a god of vegetation. It also discusses sympathetic magic and its relation with fertility cults and the king of the grove. For 10 points, identify this "study in magic and religion" by James George Frazer.

ANSWER: *The **Golden Bough***

033-11-30-10103

3. This thinker offered his two hands as proof of the existence of external objects. He further repudiated skepticism in an essay that offers "truisms" such as "the earth had existed for many years before my body was born" to demonstrate that there *are* absolute certainties. This author used the Open-Ended Question to argue that "good" cannot be defined in his best-known work. This author of "A Defence of Common Sense" and "The Refutation of Idealism" dubbed any attempt to define good a "naturalistic fallacy." For 10 points, name this British philosopher who penned *Principia Ethica*.

ANSWER: George Edward **Moore**

079-11-30-10104

4. Acte helps one character in this novel escape when she is blamed for bewitching a royal daughter who died under mysterious circumstances. A character given the title "arbiter of elegance" cuts his wrist with Eunice at the end of this novel. The Greek Chilo Chilonides betrays the protagonist by revealing the location of a hidden religious colony. In one scene from this novel the giant Ursus strangles a charging bull to rescue a girl tied to its back. After falling in love with the slave Lygia, the protagonist of this novel converts to Christianity and escapes Nero's persecution. Titled for Jesus' apocryphal quote to Peter while he is fleeing Rome, for 10 points, name this novel about Marcus Vinicius by Henryk Sienkiewicz.

ANSWER: ***Quo Vadis***

109-11-30-10105

5. Alvio Renzini developed a diagnostic for these objects formation. A large one of these in the Virgo Cluster is M87. Certain parameters describing these are constrained by the fundamental plane. Type II supernova have not been observed to occur in these. The brightness of these objects is characterized by De Vaucouleur's Law. The velocity dispersion and luminosity of these are related by the Faber–Jackson relation. They are measured on a scale that runs from zero to seven. These objects tend to have little star formation because of the lack of interstellar matter, and are composed of old stars with low mass. They can be classified according to the ratio of their major and minor axes. For 10 points, name these galaxies which are neither lenticular nor spiral.

ANSWER: **elliptical galaxies** [prompt on **galaxies**]

024-11-30-10106

6. This man took to drinking again after the photographer Hans Namuth stopped documenting his work. In one of this man's early works, a team of oxen can be seen pulling two Conestoga Wagons under a full moon. That painting demonstrated the early influence of Thomas Hart Benton and was titled *Going West*. The symbolic drawings this man created while under Jungian analysis gave birth to works like *Guardians of the Secret* and *The She Wolf*. This man's wife painted works in the same genre as him and was named Lee Krasner. Best known for works like those in the *Autumn Rhythm* series and *Lavender Mist*, for 10 points, name this Abstract Expressionist often called "Jack the Dripper".

ANSWER: Jackson **Pollock** [or Paul Jackson **Pollock**]

094-11-30-10107

7. One sign of this disease is patients' use of the Gowers maneuver. A recent therapy for this disease involves oligonucleotide-mediated exon-skipping. A similar condition caused by a less-damaging mutation in the same gene as this disease is named for Becker. Blood levels of creatine kinase are very high in this disease, which also causes dilated cardiomyopathy without heart failure. The gene mutated in this disease has 79 exons, and patients exhibit pseudohypertrophy and eventual respiratory failure. The gene central to this disease, dystrophin, is located on the X-chromosome, and its mutation leads to wasting and loss of the ability to walk. For 10 points, name this X-linked genetic disorder which causes muscle wasting.

ANSWER: Duchenne **Muscular Dystrophy** or **DMD**

048-11-30-10108

8. Charles Alkan published a set of these pieces as his opus 31, which includes one nicknamed "The Song of the Mad Woman on the Sea Shore." Jascha Heifetz popularized his own violin transcriptions of the three pieces written in this form by Gershwin. Examples of this form by Debussy include "What the West Wind Has Seen" and "Footsteps in the Snow." Chopin's Opus 28 consists of twenty-four of these pieces, including the fourth in E-minor, which was played at his funeral, and the fifteenth, which is known as the "Raindrop." Bach paired each of his twenty four fugues with one of these works in *The Well-Tempered Clavier*, and Rachmaninoff built his reputation on one in G minor and one in C sharp minor. For 10 points, name these brief piano pieces which are often prefaces to longer works.

ANSWER: **preludes**

015-11-30-10109

9. One common kenning for these objects was "Ullr's ship." In Arthurian mythology, the Lady of the Lake gives one of these to Lancelot that cures its owner of exhaustion and gives him the strength of three men. King Arthur owned one named Pridwen, and Sir Galahad's was partially made from the blood of Joseph of Arimathea. In Rome, one of these objects called the Ancile was watched by the twelve leaping Salii priests. Another of these objects depicts various events in the history of Rome around the Battle of Actium at its center, as related in a long ecphrasis; that example was forged by Vulcan for Aeneas. For 10 points, the aegis was an example of what defensive weapon?

ANSWER: **shields**

015-11-30-10110

10. The *USS John Adams* and the *USS Vandalia* were sent to this country over claims filed against it relating to the burning of John Brown Williams' house. Its first non-interim colonial governor was Sir Arthur Gordon. While not originally from this country, Ma'afu established a kingdom here and came into conflict with its eventual unifier, Cakobau. The Australian Colonial Sugar Refining Company established sugar plantations here, resulting in the importation of laborers from India. Today, over a third of the population is descended from those laborers. For 10 points, name this Pacific island nation where a number of coups in recent years have occurred in its capital of Suva.

ANSWER: Republic of **Fiji** [or Matanitu ko **Viti**]

001-11-30-10111

11. An iodinated version of this compound is used to reduce disulfide bridges during protein sequencing and to inhibit cysteine proteases. Its trifloro- version is a commonly used mobile phase in peptide HPLC. One process used to produce this process must suppress both the water-gas shift reaction and the production of propionic acid; that process uses an Iridium-III catalyst to carbonylate methanol. The anhydrous version of this compound is referred to as "glacial", and methods to produce it include the Cativa and Monsanto process. This substance is created by bacteria when ethanol is oxidized twice in a fermentation-type process. For 10 points, name this substance with formula CH_3COOH , an organic acid that is the primary component of vinegar.

ANSWER: **acetic acid** [or **acetate**]

048-11-30-10112

12. In one of this author's stories, the narrator takes in a primitive man and names him "Argos," only to learn that he is the Greek poet Homer. In another of his stories, a playwright is given an extra year to complete his magnum opus while he stands in front of the firing squad. This author of "The Immortal" and "The Secret Miracle" wrote a story which begins when Adolfo Bioy Casares brings over a volume of the *Anglo-American Cyclopedia*. Another of his stories takes place on the anniversary of the death of Beatriz Viterbo, when the narrator visits the house of Carlos Argentino Daneri and finds the title microcosm under the stairs. For 10 points, name this Argentine author of "Tlon, Uqbar, Orbis Tertius" and "The Aleph."

ANSWER: Jorge Luis **Borges**

080-11-30-10113

13. Heidi Weber used the colorful tiles of this man's design to build his namesake art museum in Zurich. This architect collaborated with Nadir Afonso on "The Radiant City," an apartment complex that served as a model throughout Europe. He designed the Philips Pavilion for Expo '58 while creating the design for the "Palace of Assembly" and other buildings in the Indian city of Chandigarh. This architect worked with Oscar Niemeyer on designing the headquarters of the United Nations. He used pilotis to support a house outside Paris that is an example of his International style, which he explicated in his book *Towards a New Architecture*. For 10 points, name this French architect who designed the Villa Savoye.

ANSWER: Le **Corbusier** [or Charles-Edouard **Jeanneret**]

088-11-30-10114

14. In 2005, a referendum in this country voted for the end of its "Movement" system and a return to multiparty politics. The next year, Kizza Besigye lost his bid for the presidency, alleging corruption against this country's twenty-five-year leader. Former rebel groups in this country included the People's Democratic Army and the Holy Spirit Movement, which was subsumed into a group led by Joseph Kony. The film and organization *Invisible Children* works to raise awareness of the activities of this country's Lord's Resistance Army. It has been led by Yoweri Museveni since 1986. For 10 points, name this country which has suffered internal strife since the overthrow of Idi Amin.

ANSWER: **Uganda**

015-11-30-10115

15. A mixture of bark and wasp enzymes must be used to treat the “gevil” that is used to construct these objects. These items are created using the STAM characters, which include the crows-foot marks known as “crowns” on some letters. When using one of these objects, it is never directly touched; instead, one’s place is kept with a metal pointer called a “yad.” It is kept in the “aron kodesh” which, in American contexts, is mounted on the eastern wall of the building. Forty-two lines of the text appear in each column of, for 10 points, what scrolls containing the Hebrew characters of the five books of Moses?

ANSWER: **Torah** scrolls [or sefer **Torah**]

019-11-30-10116

16. This civilization produced terra cotta funerary sculptures such as the Sarcophagus of the Spouses. The prophet Tages legendarily delivered the language of this civilization to the brothers Tyrrhenus and Tachron. Likely descended from the Villanovans, and consisting of a federation of twelve cities called the Dodecapoli, they were dealt decisive defeats at the Battle of Cumae and the Siege of Veii. Their rulers included Lars Posena and Tarquin the Proud, who became the final King of Rome. For 10 points, name this early Italian civilization supplanted by the Romans in 550 BCE.

ANSWER: **Etruscan** civilization [or **Etrusci**; or **Tusci**; or **Rasenna**; or **Rasa**; accept **Tyrrhenioi** or **Tyrsenoi** before Tyrrhenus is mentioned]

079-11-30-10117

17. For a set of points, the Gram scan finds the minimal set of this type containing them. When $g(x)$ is one of these functions, g of the integral from 0 to 1 of $f(x)$ is less than or equal to the integral of g of f according to Jensen's inequality. A function is this on I , if for all x, y in I and all a between zero and one, f of quantity ax plus y times 1 minus a is less than a times f of x plus f of y times 1 minus a . A function possesses this property on an interval only if the chord between any points along the function in that interval is at or above the function. Another test for this if its second derivative is positive. For 10 points, name this property that is the opposite of concave.

ANSWER: **convex** [prompt on **concave up** before concave]

001-11-30-10118

18. This state saw a city’s mayor, Bracken Lee, fire police chief and future political theorist Cleon Skousen after the mayor was found at an illegal card game. The Senate held three years of hearings on whether to seat this state’s Reed Smoot. A crime committed by a resident of this state led to the case of *Reynolds v. U.S.* One event in this state's history involved the founding of Camp Floyd by Albert Sidney Johnston, who was seeking to rein in a group responsible for the Mountain Meadows Massacre. It first applied for statehood as Deseret, and was frequently blocked due to its legal approval of polygamy. For 10 points, name this state, the final destination of Brigham Young’s Mormons.

ANSWER: **Utah**

019-11-30-10119

19. One poem by this author recalls the time period "between the end of the Chatterly ban and the Beatles' first LP." He asked "What trap is this? Where were its teeth concealed?" in the poem "Myxomatosis." This author wrote that "Postmen like doctors go from house to house" and noted "I work all day, and get half drunk at night" in one poem. He declared that "life was never better than in nineteen sixty-three" in "Annus Mirabilis." In another poem, he described visiting a monument where an "earl and countess lie in stone" with "little dogs under their feet." Another of his poems begins "They fuck you up, your mum and dad." For 10 points, name this British poet of "Aubade," "An Arundel Tomb," and "This Be the Verse."

ANSWER: Philip **Larkin**

032-11-30-10120

20. *The Guardian* newspaper was founded by a witness to this event, which saw William Hulton dispatch a Yeomanry regiment under the drunken Captain Hugh Birley. Unlawful Drilling and Blasphemous Libel were outlawed by Lord Sidmouth in response to this August 16 event, which also inspired the Cato Street Conspiracy. The Six Acts were passed in the aftermath of this 1819 attempt to arrest the radical orator Henry Hunt, which saw cavalry kill fifteen of the 70,000 Mancunians who were gathered to protest Parliamentary representation in the midst of a famine. For 10 points, name this massacre whose name is a combination of St. Peter's Field, where it occurred, and Napoleon's final defeat.

ANSWER: **Peterloo** Massacre [or Battle of **Peterloo**]

079-11-30-10121

21. In one novel by this author Johann Fischer commits suicide after being caught in a scandal trying to steal money from the Algiers government. That novel's title character decides to scheme against her own family members Adeline Hulot and Baron Hulot because her feelings for the Polish sculptor Count Steinbock are unrequited. This author wrote another novel about a woman who is forced by her miserly father to marry Monsieur Cruchot despite her feelings for her cousin Charles Grandet. He also wrote a book in which Eugene Rastignac watches the title character sacrificing himself for his ungrateful daughters. For 10 points, name this author who collected *Cousin Bette*, *Eugenie Grandet*, and *Pere Goriot* in his series *The Human Comedy*.

ANSWER: Honoré de **Balzac**

015-11-30-10122

22. One useful model of these substances posited that they contain two components, one of which carries all the entropy; that model was posited by Tisza. One hallmark of these substances is the fact that a pressure gradient has no effect on their motion, and it is also impossible to maintain a thermal gradient across one of these substances. Substances with this property can produce Rollin films, and when temperature is applied on one side of a porous plug, these substances will produce jets. Landau won the Nobel Prize for his work on these substances, which only exist below the lambda point. Common substances of this type include very cold helium-3 and helium-4, and they creep out of the sides of their containers. For 10 points, name these substances with zero viscosity.

ANSWER: **superfluidity**

024-11-30-10123

23. Among the primary sources describing this event are the journal of Walter Briggs and William Borough's map depicting the *Golden Lion* receiving the brunt of enemy fire. It was followed by a failed landing at Lagos and the capture of the castle of Sagres. A Genoese ship inexplicably opened fire during this action. Pedro de Acuña prevented any landings during this action, while a man who later commanded a large military folly, the Duke of Medina Sidonia, arrived to chase the attackers away. This action delayed the launch of the Spanish Armada and was described as "singeing the King of Spain's beard." For 10 points, name this action that during which an English privateer burned over twenty ships in the harbor of a Spanish port city.

ANSWER: Sir Francis **Drake's raid** on **Cadiz** [or early **singeing the King of Spain's beard**; or equivalents mentioning both **Drake** and **Cadiz**]

003-11-30-10124

1. The main characters of this work are crushed to death by a truck whose tire they were changing. For 10 points each:

[10] Name this novel, in which Tomas, a surgeon, and his wife Tereza leave Prague and move to the country.

ANSWER: *The Unbearable Lightness of Being* [or *Nesnesitelná lehkost bytí*]

[10] *The Unbearable Lightness of Being* is a novel by this Czech author, who also wrote *The Book of Laughter and Forgetting*

ANSWER: Milan **Kundera**

[10] In Kundera's novel *The Joke*, Ludvik Jahn is ostracized after sarcastically writing that this phenomenon is the "opium of the people" on a postcard.

ANSWER: **optimism**

088-11-30-10201

2. Answer some questions about genetic disorders. For 10 points each:

[10] This genetic disorder is caused by a mutation in the HEX A gene leading to a buildup of a particular class of glycosphingolipid in nerve cells. It usually leads to death before the age of four.

ANSWER: **Tay-Sachs** disease

[10] Tay-Sachs disease is unique among this class of diseases because it doesn't cause an enlarged liver. These inborn errors of metabolism, which include Sandhoff's disease and Niemann-Pick disease, are characterized by enzyme deficiencies in a certain organelle.

ANSWER: **Lysosomal storage** disorders [Prompt on **lysosome** or similar such things]

[10] These are the glycosphingolipids that build up in Tay-Sachs. Their carbohydrate component contains charged sialic acids.

ANSWER: **gangliosides**

001-11-30-10202

3. Name the following about Louis II, the fourth Prince of Conde, for 10 points each.

[10] Louis's arrests and releases by Cardinal Mazarin were central to this civil strife in France that occurred during the mid 1600s, which takes its name from the word for "sling."

ANSWER: the **Frondes**

[10] After his final release from prison, Louis lost this disastrous battle for the French, effectively ending the Franco-Spanish War and leading to the Peace of the Pyrenees.

ANSWER: Battle of the **Dunes**

[10] Mazarin hoped to tarnish Louis's reputation by sending him to fight the "Reaper's War" in this province, where an uprising against the Spanish had begun on the "Bloody Corpus Christi" day. Six million speakers of this region's namesake Romance language were repressed in an autonomy drive under Franco.

ANSWER: **Catalonia** [or **Catalunya**]

026-11-30-10203

4. This character has affairs with Fay Doyle and Mary, the wife of his editor Shrike. For 10 points each:
[10] Name this advice columnist who has a religious experience in the last chapter of an eponymous novel before being shot by Mr. Doyle.

ANSWER: Miss **Lonelyhearts**

[10] *Miss Lonelyhearts* was written by this American novelist who created a bumbling character named Homer Simpson in a novel about Hollywood entitled *Day of the Locust*.

ANSWER: Nathanael **West**

[10] West's novel *A Cool Million* is subtitled "The Dismantling of" this character, a perennially optimistic naif who loses an eye and a leg, among other body parts.

ANSWER: **Lemuel** Pitkin [or Lemuel **Pitkin**]

079-11-30-10204

5. This civilization's legendary founder was Manco Capac. For 10 points each:

[10] Name this Peruvian civilization whose creator god Viracocha created man by blowing into stones.

ANSWER: **Incans**

[10] This sun god and son of Viracocha ordered his children to build Cuzco where a golden wedge would penetrate the ground.

ANSWER: **Inti**

[10] This fertility goddess and wife of Inti causes earthquakes and presides over nature.

ANSWER: **Pachamama**

105-11-30-10205

6. This definition of knowledge was challenged in a short 1963 paper by Edmund Gettier. For 10 points each:

[10] Name this three-part definition of knowledge.

ANSWER: **justified true belief** [accept anything mentioning justification, truth, and belief]

[10] According to this philosophical school, the outcome of a belief is more important than its truth or justification. Prominent members of this school include C. S. Peirce and William James.

ANSWER: **Pragmatism**

[10] This philosopher developed a "tracking theory" of knowledge with four conditions in his book *Philosophical Explanations*. He also wrote *Socratic Puzzles*.

ANSWER: Robert **Nozick**

024-11-30-10206

7. Name the following about volcanoes in the Americas for 10 points each:

[10] Fifty seven people died in the 1980 eruption of this Washington state volcano.

ANSWER: Mount **St. Helens**

[10] This lake, which contains Wizard Island, was formed by a massive eruption on Mount Mazama.

ANSWER: **Crater** Lake

[10] In 1902, Saint-Pierre, the largest city and capital of Martinique, lost thirty-thousand people to the eruption of this volcano.

ANSWER: Mount **Pelee**

015-11-30-10207

8. This religion's marriage ceremony sees the bride and groom sip from three wide cups of varying sizes three times each. For 10 points each:

[10] Name this religion that also celebrates Seven-Five-Three day, in which children of those ages dress up and are blessed.

ANSWER: **Shintoism** [or **kami-no-michi**]

[10] Shinto, along with Buddhism, dominates the religious practices of this island nation.

ANSWER: **Japan** [or **Nippon**]

[10] This Shinto Grand Shrine in Mei Province is dedicated to Amaterasu. It is torn down and rebuilt every twenty years.

ANSWER: **Ise** Grand Shrine [or Ise **Jingu**]

026-11-30-10208

9. According to A. Marwick, the diagonal lines of this painting help illustrate the concept of infinity, much like the artist's other painting *Monk by the Sea*. For 10 points each:

[10] Name this painting often used as a symbol of the Romantic movement, which shows the title figure on a precipitous cliff looking down on whiteness.

ANSWER: ***Wanderer Above the Sea of Fog*** [or *Der Wanderer Uber dem Nebelmeer*; accept alternate answers generously]

[10] This German Romantic painted *Wanderer Above the Sea of Fog*. He also painted a desolate scene in his *Abbey in the Oak Forest*.

ANSWER: Caspar David **Friedrich**

[10] This work of Friedrich is modeled after the Elbe in winter and depicts the wreckage of one of William Parry's expeditions to the North Pole.

ANSWER: ***The Sea of Ice*** [or *The Wreck of Hope*; or *Das Eismeer*; or *Die gescheiterte Hoffnung*]

033-11-30-10209

10. This property can be represented using a Jones vector. For 10 points each:

[10] Name this property in which a wave is oriented entirely in one direction.

ANSWER: **polarization** [accept equivalents like **polarized light**]

[10] A polarized wave can often exist as this type of wave in which the direction of propagation is perpendicular to the angle of energy transfer.

ANSWER: **transverse** wave

[10] At this angle, light with a certain polarization cannot be reflected when it changes medium. For visible light going from air to water, it is about 53 degrees.

ANSWER: **Brewster's** angle

064-11-30-10210

11. A protest against this activity was immortalized in a photo showing Joseph Rakes about to stab lawyer Ted Landsmark with a flagpole bearing the American Flag. For 10 points each:

[10] *The Soiling of Old Glory* by Stanley Forman captures opposition to what practice of transporting students across district lines to counter de facto residential segregation?

ANSWER: **busing**

[10] Michael MacDonald wrote a memoir about his participation in the 1974 anti-busing riots in the South neighborhood of this city.

ANSWER: **Boston**

[10] In another part of the country, this group of students, including Ernest Green and Thelma Mothershed, was integrated into Central High School despite the opposition of Governor Orval Faubus.

ANSWER: **Little Rock Nine**

020-11-30-10211

12. This force unsuccessfully tried to aid General Bazaine at the Siege of Metz before being defeated at the Battle of Beaumont. For 10 points each:

[10] Name this faction of the French army led by Marshall Patrice Mac-Mahon and named for an important battle fought on what is now French soil.

ANSWER: The Army of **Chalons**

[10] Von Moltke the Elder dealt the army of Army of Chalons their final defeat at this decisive 1870 battle of the Franco-Prussian War. It led to the capture of Napoleon III.

ANSWER: Battle of **Sedan**

[10] This “Iron Chancellor” of Germany’s King Wilhelm I sparked the war by editing the Ems Dispatch.

ANSWER: Otto von **Bismarck**

079-11-30-10212

13. This work was later used as part of the final movement of its composer's third and final symphony. For 10 points each:

[10] Name this composition which begins with pounding timpani beats and then repeats a ten-note trumpet theme beginning with the rising notes G-C-G. It was originally commissioned to commemorate those serving in the military.

ANSWER: ***Fanfare for the Common Man***

[10] *Fanfare for the Common Man* was first performed by a symphony in this state currently led by Paavo Jarvi. Another symphony located in this state rose to become one of the Big Five American orchestras under the leadership of George Szell from 1946 to 1970 and Lorin Maazel from 1972 to 1982.

ANSWER: **Ohio**

[10] *Fanfare for the Common Man* was written by this American composer of the ballet *Rodeo*.

ANSWER: Aaron **Copland**

088-11-30-10213

14. Name some Polish kings, for 10 points each.

[10] This Grand Duke of Lithuania ruled Poland from 1399 to 1434, and gives his name to a dynasty which connected Poland and Lithuania.

ANSWER: Wladyslaw II **Jagiello** [accept **Jogaila**]

[10] This King of Poland also served as Grand Duke of Lithuania, and was nicknamed “the Strong.” He renounced his claim to the throne in the Treaty of Altranstadt.

ANSWER: **Augustus II** [or **Frederick Augustus I**; accept **Augustus the Strong**]

[10] The legendary first king of Poland had this name, which is also the first name of the twentieth-century politician who co-founded Solidarity and won the Nobel Peace Prize.

ANSWER: **Lech**

024-11-30-10214

15. Name these African countries from literary clues, for 10 points each.

[10] Shire Jama Ahmed developed the Latinization of this country's language, which was used by Nuruddin Farah to write the novels *Links* and *Maps*.

ANSWER: **Somalia**

[10] This home of Ousmane Sembene and Mariama Ba was led for 20 years by Leopold Senghor, a leader of the Negritude movement.

ANSWER: **Senegal**

[10] This country has produced one Nobelist, Naguib Mahfouz, but the most notable text from this country may be *The Book of the Dead*.

ANSWER: **Egypt**

024-11-30-10215

16. Name these operas by Giuseppe Verdi for 10 points each:

[10] The aria "La donna e mobile" plays hauntingly in the background as the title hunchback jester of this opera realizes he has accidentally ordered the death of his own daughter.

ANSWER: **Rigoletto**

[10] In this opera, the gypsy woman Azucena reveals that she threw her own son into the fire instead of Manrico, the wandering musician who falls in love with Leonora.

ANSWER: **Il Trovatore** [or **The Troubador**]

[10] The events of this opera are set in motion when the South American born Don Alvaro accidentally shoots Leonora's father, the Marquis of Calatrava.

ANSWER: **La Forza del Destino** [or **The Force of Destiny**]

015-11-30-10216

17. Of this family's eight children, Prue dies in childbirth, and James is the favorite of their mother. For 10 points each:

[10] Name this family, whose father is a metaphysical philosopher.

ANSWER: **Ramsay** family

[10] The Ramsay family are friends with the painter Lily Briscoe in this novel.

ANSWER: **To the Lighthouse**

[10] *To the Lighthouse* was written by this author, who also created *Mrs. Dalloway*.

ANSWER: Virginia **Woolf**

088-11-30-10217

18. Molecular hydrogen can exist in an ortho or para state. For 10 points each:

[10] In the case of molecular hydrogen, the terms ortho and para refer to this property. For a proton and electron, this property can be positive or negative one half.

ANSWER: **spin**

[10] The spin function of ortho hydrogen has this property, indicating that changing the order of the two protons in the wave function will yield the same wavefunction.

ANSWER: **symmetric**

[10] Ortho hydrogen, in which the spins of each proton are the same, exists in this state. Ground state oxygen exists in this state since its two unpaired electrons have parallel spins.

ANSWER: **triplet** state

064-11-30-10218

19. Ebbinghaus's serial position effect notes that this functions best for items at the beginning and end of a list. For 10 points each:

[10] Name this ability which comes in short and long term varieties.

ANSWER: **memory**

[10] This type of memory is deeply implanted into the brain by a traumatic or surprising incident. It is commonly exemplified by an American's memory of the JFK assassination.

ANSWER: **flashbulb** memory

[10] This psychologist became a widely sought after trial witness after the acceptance of her work on false memories and the misinformation effect. She is especially known for debunking claims of Satanic ritual abuse.

ANSWER: Elizabeth **Loftus**

015-11-30-10219

20. This landmass was surrounded by the Panthalassa ocean. For 10 points each:

[10] Name this supercontinent that broke up into Laurasia and Gondwanaland between 225-200 million years ago.

ANSWER: **Pangea**

[10] The study of this supercontinent led to the SWEAT hypothesis. It preceded Pangea and existed during the Neoproterozoic era.

ANSWER: **Rodinia**

[10] This continent formed the core of Rodinia. Today it forms most of the North American Craton.

ANSWER: **Laurentia**

001-11-30-10220

21. A group of these functions is known as a comb. For 10 points each:

[10] Name this function which is zero at all points except a single one and is named for an English physicist.

ANSWER: **Dirac delta** function [prompt on “delta function”]

[10] A Dirac comb has the property that it is equal to itself when this transform is performed. This transform is used to go from a time domain to a frequency domain.

ANSWER: **Fourier** transform

[10] The Dirac delta is defined as having this value for its integral from negative infinity to positive infinity. This value is also the number of sides in a Mobius strip.

ANSWER: **one**

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