

1. Harold Ickes pushed for two of these systems, known as "Big Inch" and "Little Big Inch," to be built during World War II. Another one of these systems built during World War II connects Montreal with Portland, Maine. The "Seaway" and "Spearhead" ones meet at Cushing, Oklahoma, which is a major nexus for them. The longest one of these systems in North America has a major junction point at Clearbrook, Minnesota and is owned by Enbridge. The "Trans-Alaska" one connects Prudhoe Bay and Valdez. The decision over extending one of these systems to reach the Gulf Coast was delayed until 2013. For 10 points, the proposed "Keystone XL" is an example of what systems used to transport a certain natural resource? ANSWER: oil pipelines [or petroleum pipelines; prompt on pipelines]

003-12-59-14102

2. This artist recorded the construction of skyscrapers from the perspective of his apartment in *Looking Northwest from the Shelton*. He created a series of images of clouds he called *Equivalents*. In one of his works, a driver gives water to his steaming horses in front of a post office in Harlem. To display his work, he created the gallery 291. In another of his works, which depicts the *S.S. Kaiser Wilhelm*, a white gangplank separates the upper and lower decks of a ship headed to Europe. This man's photographs include *The Terminal* and *The Steerage*. For 10 points, name this husband of Georgia O'Keefe, a leader of the Photo-Secessionist movement.

ANSWER: Alfred **Stieglitz**

080-12-59-14103

3. Gemma Frisius proposed a method for finding this quantity which was finally used 250 years later by the "lone genius" in a Dava Sobel history titled for this quantity. Inaccurate measurements of this quantity caused over 2,000 deaths in the Scilly disaster. The step of "clearing" is used in the lunar distances method of finding this quantity. By also telling the time from a reference point, the H4 chronometer of John Harrison could help obtain this quantity, winning him a 20,000 pound prize for its accurate measurement at sea. For 10 points, name this navigational quantity fretted over by the Greenwich Royal Observatory, at which it equals 0.

ANSWER: **longitude** [prompt on **position**; prompt on **time** until "titled" is read]

104-12-59-14104

4. This author's earliest known story describes "Shamefaced Lanky and Impure in Heart." Another of his protagonists never leaves his lofty perch and is reassured by his manager that he will be given a second trapeze. This author of "First Sorrow" concluded, "My boat is without a helm--it journeys with the wind which blows in the deepest regions of death" in a story whose protagonist talks to the Burgomaster of Riva. This author wrote about an unpopular performer who is replaced by a panther. In addition to "The Hunter Gracchus" and "The Hunger Artist," he created a man who throws an apple at his son and instructs Grete to play the violin in his most famous work. For 10 points, name this author who created Gregor Samsa in "The Metamorphosis."

ANSWER: Franz Kafka

5. Traditions of this holiday include offering toys to please the "little angels." It is connected to the return of the monarch butterflies from migration. On this holiday, families use a crop, tissue paper, water, and a candle to represent the "four elements" in an altar set up inside the home. Orange marigolds decorate streets on this holiday, which celebrates the image of "La Catrina." Taking place on All Saints' Day and All Souls' Day, it features the consumption of skull candy and the ubiquitous presence of skeletons. For 10 points, name this holiday that combines Catholic and pre-Columbian traditions, celebrated in Mexico and Central America.

ANSWER: the **Day of the Dead** [or la **Dia de los Muertos**]

080-12-59-14106

6. One ruler of this city constructed a trackway for ships called the *diolkos*. Another king of this city was named for the chest he was hidden in as a baby to avoid death; that ruler expelled the Bacchiadae, this city's ruling clan. Cypselus and his son Periander both ruled this city, whose colonies included Corcyra and Potidaea. A war named for this city was ended by the Peace of Antalcidas, which was also known as the King's Peace. The Romans plundered lots of Hellenistic art from this city after its sack by Lucius Mummius in 146 BC. For 10 points, name this Greek city located on a namesake isthmus north of the Peloponnese.

ANSWER: Corinth

080-12-59-14107

7. One of this author's works describes how the Polish Permanent Council followed up an open vote with a secret vote. He stated that "the question is not, Can they reason? nor, Can they talk? but, Can they Suffer?" in a work describing how mankind is governed by "two sovereign masters, pain and pleasure." Besides supporting animal rights in *Introduction to Principles of Morals and Legislation* and laissez-faire economics in *A Defense of Usury*, this author theorized a structure where inmates can be observed without their knowledge. The "greatest happiness for the greatest number" was thought up by, for 10 points, what English philosopher who came up with the Panopticon and theorized utilitarianism?

ANSWER: Jeremy Bentham

020-12-59-14108

8. In a story in this collection, the landlord Mrs. Croft insists that her boarder loudly say the word "splendid" after she announces the placement of the American flag on the moon. In another story in this collection, Shoba learns that her husband held her stillborn son after Shoba reveals her intention to lease her own apartment. Those stories in this collection are "The Third and Final Continent" and "A Temporary Matter." A trip to the Sun Temple at Konarak is the setting for a story in this work in which Bobby, the son of Mrs. Das, is saved from a pack of monkeys. The title character of this collection's namesake story is a tour guide named Mr. Kapasi, who translates for a physician's Gujarati patients. For 10 points, name this short story collection by Jhumpa Lahiri.

ANSWER: *Interpreter of Maladies*

030-12-59-14109

9. An excited state of this element named for Hoyle is important in stellar nucleosynthesis. One molecule created from this element isomerises to create Stone-Wales defects, and that form is purified using a mixture of DBU and trimethylbenzene. One form of this element is produced when cosmic rays bombard nitrogen. Chemical shifts between 0 and 200 ppm are observed in a type of NMR that observes a form of this element. Kroto, Smalley, and Curl found an unusual form of this element which forms a ball-like structure. A sample of one type of this element is used in the precise definition of Avogadro's number, while another form of this element has a half-life of 5700 years. For 10 points, name this element whose isotope with a mass number of 14 is used in radioactive dating.

ANSWER: carbon

10. When this company purchased Indiana Harbor Works, it acquired and completed the workers' community of Marktown in East Chicago. This company was the target of a riotous strike in 1916, in which the National Guard intervened in the present-day town of Campbell after its workers burned down the city. Solicitor General Philip Perlman argued against this company, represented by John W. Davis, when its incalcitrance during a threatened strike that would have affected Korean War supplies led Harry Truman to seize its production facilities. For 10 points, name this Ohio-based steel manufacturer that successfully won a check on executive power in its Supreme Court case against Commerce Secretary Charles Sawyer.

019-12-59-14111

11. In one shot from this film, a man suddenly stops waving at some out-of-frame horsemen as a seated man with his back to the viewer mentions an argument he had with his son-in-law. In another scene, the camera focuses on a cabbage against the kitchen door of a woman murdered while carrying in her groceries. At the end of this film, the protagonist is berated for recalling the instruction to do "as little as possible." That protagonist repeatedly slaps a woman as she screams "My sister! My daughter! My sister AND my daughter!", revealing that her father raped her. In this film, the death of Hollis Mulwray sets off an investigation of the dumping of reservoir water in L.A. For 10 points, name this neo-noir film directed by Roman Polanski about private detective Jake Gittes.

ANSWER: Chinatown

ANSWER: Youngstown Sheet & Tube Company

014-12-59-14112

12. One method of calculating this quantity is called OB-1. At this quantity in an infinite medium, the product of the reproduction factor, utilization factor, resonance escape probability, and epsilon is equal to one. Calculations of this quantity often ignore delayed incident particles and only consider prompt ones, and the calculation of this quantity relies on a fudge factor that considers deviations from spherical geometry. This quantity corresponds to a multiplication factor of one, and the original method of calculating it was developed by Peierls. This quantity is calculated by imagining a neutron taking a random walk through a bunch of nuclei. For 10 points, name this quantity, the amount of fissile material needed to sustain a nuclear reaction.

ANSWER: critical mass

048-12-59-14113

13. When her father goes off to Liverpool, this character asks him for a whip while her brother asks for a fiddle. After announcing her planned marriage, this character describes a dream in which she wept upon reaching heaven and was cast out by angry angels. While delirious, this character thinks that her bed is "the fairy cave under Penistone crags" that she visited with a character of whom she says, "He's more myself than I am." After her death, her ghost haunts Mr. Lockwood. This character's wildness becomes subdued when she goes to Thrushcross Grange and marries Edgar Linton, an act that bereaves the "gipsy boy" she grew up with. For 10 points, name this love of Heathcliff from Emily Bronte's *Wuthering Heights*.

ANSWER: <u>Catherine</u> Earnshaw [or <u>Catherine</u> Earnshaw; prompt on <u>Earnshaw</u>]

080-12-59-14114

14. After hearing a strange dream, this man told Euphemus to throw a clod of earth into the sea, creating the island of Anaphe. He is credited with founding the capital of Slovenia, Ljulbjana. He took a break on the island of Lemnos by sleeping with Queen Hypsipyle. By wearing a magic ointment, he yoked two fire-breathing bulls. After he and his men survived crashing rocks called the Symplegades and saved Phineus from the Harpies, he reached the region of Colchis, where Medea fell in love with him. For 10 points, name this leader of the Argonauts.

ANSWER: Jason

15. Holmes and Rahe created a scale linking different events with units measuring this phenomenon. The General Adaptation Syndrome is the three-stage response to this phenomenon theorized by Hans Selye, who coined its name. It's not a heart condition, but Meyer Friedman and Ray Rosenman theorized that Type A personalities were more vulnerable to this than Type B ones. This phenomenon results in the release of cortisol and the activation of the "fight or flight" response. For 10 points, name this phenomenon experienced by humans in a tense situation.

ANSWER: stress

080-12-59-14116

16. This revolt inspired the formation of the literary group Young Germany and also inspired a failed uprising in Poland against Nicholas I. The conservative side of this revolution was led by the historian Francois Guizot. The newspaper "Le National" was started before this revolution by Adolphe Thiers. This revolt included fighting known in the Three Glorious Days. This revolt was prompted by a set of ordinances passed by Polignac that conflicted with the Charter of 1814. It removed Charles X from power. For 10 points, name this 1830 revolt in France that placed Louis-Philippe on the throne.

ANSWER: July Revolution [or July Days; or Revolution de Juillet; accept Three Glorious Days or Trois Lours Cloriouses before read; accept equivalents such as the Franch Povolution of 1830 before "1830".

Jours Glorieuses before read; accept equivalents such as the French Revolution of 1830 before "1830 revolt"]

124-12-59-14117

17. One poem by this poet describes a creature who "thinks the moon is a small hole at the top of the sky" and who may give you his tear, "cool as from underground springs and pure enough to drink." Another of her poems describes the explosion of one of the "frail, illegal fire balloons" and concludes with the image of a "weak mailed fist clenched ignorant against the sky." In one of her poems, an almanac says, "Time to plant tears," as the grandmother sings. This poet of "The Man-Moth" and "The Armadillo" recalls, "some realms I owned, two rivers, a continent" in a villanelle beginning, "The art of losing isn't hard to master." For 10 points, identify this American poet of "Sestina" and "One Art."

ANSWER: Elizabeth Bishop

126-12-59-14118

18. One variety of this disease is diagnosed by staining for tartrate-resistant acid phosphatase and shows hairlike projections. Another subtype is distinguished by the presence of Auer rods, and is treated with ATRA due to the presence of a PML-RAR-alpha fusion protein. Imatinib treats another variety of this disease expressing BCR-ABL from the Philadelphia chromosome; that variety evolves into a "blast crisis". Patients with this disease often develop pinprick bleeds. People with Down syndrome are at higher risk for the most common type of this disease. Subtypes include acute lymphoblastic and chronic myelogenous. Acute types of this disease are characterized by a buildup of immature blood cells. For 10 points, name this cancer of the bone marrow.

ANSWER: leukemia [do NOT accept "lymphoma"]

105-12-59-14119

19. This artist chronicled his many fights with the establishment in *The Gentle Art of Making Enemies*. This man often signed his works with a butterfly, as can be seen in his portrait of Thomas Carlyle. One of this man's paintings shows a woman holding a lily in her left hand while standing on a wolfskin. Many of his paintings depict his mistress, Joanna Hiffernan. He went bankrupt after he only received one farthing in a libel suit against John Ruskin, who accused this man of "flinging a pot of paint in the public's face" with his *Nocturne in Black and Gold*. For 10 points, name this late 19th-century artist who often titled his paintings after musical works, the most famous of which is a portrait of his mother.

ANSWER: James McNeill Whistler

20. One person from this house ordered the retrial of Joan of Arc. Johann Burchard served as the master of ceremonies for one event held by members of this family. One rival of this family fled to Ostia; that man was Giuliano della Rovere. According to one account, two members of this family held a banquet in which prostitutes crawled on the floor to pick up chestnuts. One member of this family established a line of demarcation with his *Inter Caetera*, which was part of his Bulls of Donation. The forces of another member of this family captured Caterina Sforza. For 10 points, name this family whose members included Pope Alexander VI, Cesare, and Lucrezia.

ANSWER: **Borgia**s

149-12-59-14121

21. When this man's army had northern and southern easy options around mountains at Aruna, he personally took them through the narrow pass in the center. This man's military campaigns are recorded in annals by Tjaneni in a temple of Amun. This ruler regained control of the city of Joppa through the cunning of his general Djehuty. This ruler's most famous victory was a seven-month siege of Canaanites. This man served as regent for twenty years under a ruler whose monuments were defaced, that ruler being the female monarch Hatshepsut. For 10 points, name this Eighteenth Dynasty leader whose many campaigns during a fifty-year reign included a victory at Megiddo.

ANSWER: Thutmose III [or Thutmosis III]

104-12-59-14122

22. This effect shifts the equipotentials by an angle equal to B times the conductivity over n times e times the speed of light. For ambipolar conduction, this effect's strength is directly related to the number of holes minus the number of electrons times b squared. The conductivity created by one type of this effect is equal to the filling factor times the fundamental charge squared over h. That effect was discovered by von Klitzing. The current times the strength of the magnetic field over the number density of electrons times the fundamental charge times the plate's thickness gives the velocity caused by this effect. For 10 points, name this effect that causes a voltage difference across an electrical conductor due to a magnetic field.

ANSWER: Hall effect

149-12-59-14123

23. The narrator of this work muses that the dome of the British Library looks like a big head. A fictional novel in this work is praised as breaking two traditional narrative elements: the sentence and the sequence. That work within this work, which contains the sentence, "Chloe liked Olivia," is a novel entitled *Life's Adventure*. This work discusses the androgyny of Marcel Proust and praises Lady Winchilsea and Aphra Behn. It imagines the difficulties that would be faced by Shakespeare's fictional sister Judith. This essay theorizes that five hundred pounds a year and the title space are necessary for female authors. For 10 points, name this essay by Virginia Woolf.

ANSWER: "A Room of One's Own"



1. This region contains the Ramat Hovav toxic waste facility. For 10 points each:

[10] Name this rocky desert, whose largest city is Beersheba. It is also home to the Sde Boker community.

ANSWER: <u>Negev</u> desert [or <u>Negeb</u>; or <u>al-Naqab</u>]

[10] The Negev desert is located in this country, which is also home to the Ben-Gurion University of the Negev, named for David Ben-Gurion, who retired to Sde Boker after leaving politics.

ANSWER: State of **Israel**

[10] At the desert's southern end is this body of water, which is named after a port city in Jordan. Israel's Eilat is located on this gulf, a premiere site for diving.

ANSWER: Gulf of **Aqaba** [or Khalyj **al-Aqabah**]

052-12-59-14201

2. This man paid good money for two Raphaels, but finds that neither pleases him. He prefers Tasso and Ariosto to Virgil, and calls Milton a "barbarian" and "slovenly imitator of the Greeks." For 10 points each: [10] Name this Venetian nobleman, of whom the Manichean philosopher Martin notes, "there is pleasure in having no pleasure."

ANSWER: Signore **Pococurante**

[10] Pococurante meets Martin and the title character in Chapter 25 of this satire by Voltaire.

ANSWER: <u>Candide</u>, or Optimism [or <u>Candide</u>, or the Optimist; or <u>Candide</u>, ou, l'Optimisme]

[10] Pococurante claims that his "enormous collections of sermons" are not worth "one single page" of this Silver Age Latin author of the closet drama *Hercules Furens* and the satire *The Pumpkinification of Claudius*.

ANSWER: Lucius Annaeus **Seneca** [or **Seneca** the Younger]

003-12-59-14202

3. The "I" must posit itself according to this thinker's worldview of Wissenschaftslehre. For 10 points each:

[10] Name this German Idealist philosopher, who argued that revelation must be consistent with moral law in *An Attempt at a Critique of All Revelation*.

ANSWER: Johann Gottlieb Fichte

[10] Many mistakenly believed that this teacher of Fichte wrote *An Attempt at a Critique of All Revelation*. He wrote about the "categorical imperative" in such works as *Critique of Pure Reason*.

ANSWER: Immanuel Kant

[10] In this work, Kant argues that we must admit God's existence in order to be consistent with moral law. Jean-Francois Lyotard wrote a commentary on this work's "Analytic of the Sublime" and "Analytic of the Beautiful."

ANSWER: Critique of Judgment

- 4. Two tiny buildings and a temple can be seen on the brim of the title object, which contains water, in this artist's painting, *The Titan's Goblet*. For 10 points each:
- [10] Name this American artist who painted a series of works showing a man on a boat accompanied by his guardian angel. That series, *The Voyage of Life*, ends with "Old Age" and the impending peace of death.

ANSWER: Thomas Cole

[10] Cole was a member of this art movement, which featured painters primarily creating natural landscapes. Other members included Frederic Church and Asher Durand, and it takes its name from a New York waterway.

ANSWER: Hudson River School

[10] Cole's other famous sequence of paintings, *The Course of Empire*, begins with this painting, which depicts a hunter, canoes, and several wigwams. It comes before the "Arcadian or Pastoral State" entry.

ANSWER: "The Savage State"

052-12-59-14204

5. Red mullets and young puppies were sacrificed to this deity, who was also called "trivia" since offerings were given to her at the crossroads. For 10 points each:

[10] Name this Greco-Roman goddess of magic, a "triple goddess" invoked in witchcraft.

ANSWER: **Hecate** [prompt on **Diana**]

[10] In some accounts, Hecate is identified with this daughter of Demeter and queen of the underworld.

ANSWER: **Persephone** [or **Kore**; or **Proserpina**; or **Proserpine**]

[10] Hecate was one of these "gods of the earth." Contrasted with the Olympians, these deities are generally connected to fertility or the underworld; they include Hades in Greek myth and Anubis in Egyptian myth.

ANSWER: **chthonic** gods [or **chthonian** gods]

080-12-59-14205

- 6. According to Adolf Fischhof, the pillars of this system were the "four armies" of a soldiers, office holders, priests, and sneaks. For 10 points each:
- [10] Name this system of Austrian rule, under which Hungary was divided into five separate administrative governments.

ANSWER: Bach system

[10] The Bach system was employed during the reign of this successor to Ferdinand I. During this man's reign, Austria fought Prussia in the Seven Weeks' war.

ANSWER: **Franz Joseph** [or **Francis Joseph**]

[10] Following the Second and Third wars of Italian Independence, Franz Joseph was forced to cede most of Austria's claims to Lombardy-Venetia to this kingdom. Legally unified in the Perfect Fusion, this kingdom was ruled by the House of Savoy.

ANSWER: Kingdom of Piedmont-Sardinia

- 7. In one novel by this writer, Samson Young follows Nicola Six, who believes she will be murdered on her 35th birthday. For 10 points each:
- [10] Name this British novelist who wrote *The Information* and *London Fields*.

ANSWER: Martin Amis [prompt on Amis]

[10] Martin's father Kingsley is most famous for writing this novel about Dixon, a lecturer who drunkenly mocks Professor Welch during one of his presentations.

ANSWER: <u>Lucky Jim</u>

[10] Kingsley Amis's novel *Colonel Sun* follows this MI6 employee who first appeared in the novel *Casino Royale*.

ANSWER: James Bond [or James Bond; or 007]

127-12-59-14207

- 8. It was founded in 1881 along the south bank of the Congo River. For 10 points each:
- [10] Name this African capital originally called Leopoldville in honor of Leopold II of Belgium.

ANSWER: Kinshasa

[10] Leopoldville was founded as a trading post by this Welsh journalist and explorer who famously looked for the Scottish missionary David Livingstone.

ANSWER: Henry Morton **Stanley**

[10] Besides his attempts to find Livingstone, Stanley also led a "Relief Expedition" to rescue this governor of Equatoria in Sudan starting in 1886. The Rear Column of the expedition to save this man suffered heavy casualities, including James S. Jameson and Edmund Barttelot.

ANSWER: **Emin Pasha** [prompt on **Pasha**]

147-12-59-14208

- 9. The singer of this aria pretends that her shoe is paining her to send her rich lover, Alcindoro, away. For 10 points each:
- [10] Name this aria in 3/4 time, whose singer tries to attract Marcello by boasting that "When I walk alone in the street, people stop and stare at me, and everyone stares at my beauty." It is sung at a cafe in the Latin Quarter.

ANSWER: "Musetta's Waltz" [or "Quando me'n vo'"]

[10] Musetta sings her waltz in this Giacomo Puccini opera. At the end of this opera, the poet Rodolfo bemoans Mimi's death from tuberculosis.

ANSWER: La Boheme

[10] This Italian conducted at the premiere of *La Boheme*. He also conducted the premiere of *Adagio for Strings* as the music director of the NBC Symphony Orchestra.

ANSWER: Arturo Toscanini

080-12-59-14209

- 10. For 10 points each, name these parts of the brain that might help you answer this bonus.
- [10] This portion of the limbic system helps consolidate information from short-term to long-term memory. Its two pieces are formed from the dentate gyrus and Ammon's horn.

ANSWER: hippocampus

[10] The hippocampus lies in the medial part of this lobe of the brain, which also contains the primary auditory cortex.

ANSWER: temporal lobe

[10] This is the general term for cells in the hippocampus that rapidly fire whenever an animal is in a specific location. O'Keefe showed that rats use them to navigate mazes.

ANSWER: **place** cell [or **place** field]

- 11. In this novel, the narrator's cousin Jasper tells him to change his room at Oxford, a piece of advice that the narrator ignores. For 10 points each:
- [10] Name this novel in which Julia Flyte marries Rex Mottram. It is narrated by Charles Ryder.

ANSWER: Brideshead Revisited

[10] Brideshead Revisited was written by this English author of Decline and Fall.

ANSWER: Evelyn Arthur St. John Waugh

[10] Waugh's novel *A Handful of Dust* traces the disintegration of this couple's marriage. They live at Hetton Abbey, and the wife has an affair with John Beaver.

ANSWER: Tony and Brenda Last

127-12-59-14211

- 12. Answer these questions about the characteristic polynomial of a matrix, for 10 points each.
- [10] The roots of the characteristic polynomial are these values. If a square matrix A times some vector v is equal to a scalar lambda times v, then lambda is one of these values for A.

ANSWER: eigenvalues [do not accept "eigenvectors"]

[10] The characteristic polynomial of a matrix A can be written as an equation that takes this operation on the quantity A - z times the identity matrix. For a simple 2 by 2 matrix, this function is equal to ad minus bc.

ANSWER: determinant

[10] This property of a matrix can be found by a summation of the roots of the characteristic polynomial multiplied by their respective multiplicities. In other words, it is equal to the sum of the eigenvalues of a matrix.

ANSWER: trace

080-12-59-14212

- 13. In his major work, this author criticized *The Passion of the Christ* as "a soap-opera film about the death of Jesus." For 10 points each:
- [10] Name this author of *God is Not Great*, a journalist who controversially supported the Iraq War.

ANSWER: Christopher Eric Hitchens [prompt on Hitch]

[10] Hitchens befriended this other noted atheist. He wrote The Selfish Gene and The God Delusion

ANSWER: Richard Dawkins

[10] Hitchens once debated this conservative thinker, who claimed that elite universities replaced their students' values with liberal ideologies in *God and Man at Yale*.

ANSWER: William F. Buckley, Jr.

- 14. This man's mentor, Andrew Jackson Downing, died in a steamboat explosion on the Hudson River. For 10 points each:
- [10] Name this early figure in American landscape architecture, who frequently partnered with Calvert Vaux. He worked heavily in New York, but also designed the Midway Plaisance for the 1893 Chicago World's Exposition.

ANSWER: Frederick Law Olmsted

[10] Olmsted and Vaux designed this location in Manhattan. It receives numerous tourists, contains a zoo, and runs open-air theater and concert productions each summer.

ANSWER: Central Park

[10] This New York architect designed the second Madison Square Garden in 1890. The partner of Charles McKim and William Mead, he was killed by Harry Thaw, the husband of Evelyn Nesbit, an actress this man was having an affair with.

ANSWER: Stanford White

052-12-59-14214

15. Let's make man! For 10 points each:

[10] In Norse myth, this god fathered the four races of man in his guise of Rig. He will kill and be killed by Loki at Ragnarok.

ANSWER: Heimdall

[10] In Aztec myth, this god stole the bones of past generations of man to create the fifth and current race of man. However, this plumed serpent god slipped and broke all the bones.

ANSWER: **Quetzalcoatl**

[10] In Babylonian myth, Ea makes man out of the blood of this second consort of Tiamat, who had the Tablet of Destinies until Marduk pretty much crushed him.

ANSWER: Kingu

003-12-59-14215

- 16. It has been suggested that Faustina the Younger conceived Marcus Aurelius with one of these individuals. For 10 points each:
- [10] Name these individuals who used a namesake sword and fought to the death in arenas for the amusement of wealthy Romans.

ANSWER: gladiators

[10] This class of gladiator was named for their tendency to chase enemies around the arena. Their helmet was designed to avoid the nets carried by the retiarius.

ANSWER: secutors

[10] Secutors evolved from a class of gladiators consisting entirely of members of this defeated tribe, who had earlier given the Romans trouble at the Battle of Caudine Forks.

ANSWER: Samnites

- 17. For 10 points each, answer the following related to optics.
- [10] Often symbolized as "n", this optical property is the factor by which electromagnetic radiation is slowed as it travels through a medium.

ANSWER: Index of Refraction

[10] This law states the relationship between the sines of the angles of incidence and the indices of refraction between two media.

ANSWER: Snell's Law

[10] Snell's Law follows from this statement that light rays will take the quickest route between two points.

ANSWER: **Fermat's Principle** of **Least Time** [either part]

147-12-59-14217

- 18. This battle centered around the defense of Port Moresby. For 10 points each:
- [10] Name this naval battle of World War II in which the Japanese carrier Shoho was sunk.

ANSWER: Battle of the Coral Sea

[10] As a result of the Battle of the Coral Sea, the Japanese carriers *Shokaku* and *Zuikaku* could not participate in this battle. Before this battle, Americans cracked the JN-25 code.

ANSWER: Battle of Midway

[10] During the Battle of the Coral Sea, this American carrier was scuttled due to damage; its successor in name was nicknamed "The Blue Ghost."

ANSWER: USS Lexington

088-12-59-14218

- 19. This character avoids the "battle police" by jumping into a river after fighting at Caporetto. For 10 points each:
- [10] Name this literary character, an ambulance driver known as "Lieutenant." He falls in love with the nurse Catherine Barkley, who dies after giving birth to this man's stillborn child.

ANSWER: **Frederic** Henry [or Frederic **Henry**]

[10] Frederic Henry is the protagonist of *A Farewell to Arms*, a novel by this American author who had also worked as an ambulance driver in the war.

ANSWER: Ernest Miller Hemingway

[10] In this Hemingway short story, published in *In Our Time*, Nick Adams accompanies his father to the title location, where his father must perform an emergency caesarean section using a knife.

ANSWER: "Indian Camp"

052-12-59-14219

- 20. Answer these questions about the biology of moths, for 10 points each.
- [10] Many moths engage in the Mullerian type of this concept by emitting the high-pitched clicks of tiger moths. The textbook example of it is the coloring of the viceroy butterfly, which is totally not a moth.

ANSWER: mimicry

[10] Moths and butterflies belong to this order within the phylum Arthropoda, whose members have large colored wings and ingest using a sucking tube called the proboscis.

ANSWER: Lepidoptera

[10] Bernard Kettlewell produced famous evidence of evolution by tracking the increase of this trait in the peppered moths surrounding the industrializing areas of Birmingham, England.

ANSWER: industrial **melanism** [accept answers such as **being black** or **turning black** over generations]

- 21. One of this party's early leaders claimed his approach was influenced by Benedetto Croce. For 10 points each:
- [10] Name this Italian political party founded by Antonio Gramsci and once led by Palmiro Togliatti. It entered a "historic compromise" with its country's Christian Democrats in the 1970s.

ANSWER: Italian <u>Communist</u> Party [or Partito <u>Comunista</u> Italiano; or <u>PCI</u>]

[10] Under Enrico Berlinguer, the PCI joined this movement with the French and Spanish Communist Parties. This movement, outlined in an essay by Santiago Carrillo, called for greater independence from the Soviet Union and more willingness to engage with the democratic process.

ANSWER: **Eurocommunism**

[10] Another left-leaning Italian politician, Romano Prodi, once defeated this PM in an election. This corrupt womanizer was replaced by Mario Monti in November 2011.

ANSWER: Silvio Berlusconi