

1. In the *Phaedrus*, Plato uses one of these objects as an analogy for the human soul's struggle to bridle the passions. Myrtilus sabotages one of these objects on the orders of Pelops, and Ezekiel envisions one of these things surrounded by four creatures with four faces each. They were heavily employed at the Battle of (*) Kadesh after the Hittites revolutionized them. A film about the Olympian runners Eric Liddell and Harold Abrahams is titled for these things "of fire." For 10 points, name these horse-drawn vehicles used in ancient warfare.

ANSWER: chariots

080-12-69-02101

2. This figure was conceived when his father took on the appearance of Gorlois to enter Tintagel Castle and see his love, Igraine. The son of Uther Pendragon, this figure ultimately is mortally wounded while fighting his illegitimate son, Mordred, and is taken to the mystical island of Avalon. He is married to (*) Guinevere and wields a weapon given to him by the Lady of the Lake. For 10 points, name this legendary king of Britain who wielded Excalibur and led the Knights of the Round Table. ANSWER: King <u>Arthur</u>

052-12-69-02102

3. Apps Hungarian was a system used mainly for these things. These things can be shadowed if they have the same designation. They can be passed by reference so that the original is changed, even outside of its scope. Static ones extend across the lifetime of a program. Although they are not functions, many languages require that the (*) data type of these things be specified when they are declared. For 10 points, identify these symbols associated with a storage location that stand in for values in a computer program.

ANSWER: variables

066-12-69-02103

4. Austria and Prussia could intervene in this country only with the unanimous consent of all powers according to the Declaration of Pilnitz. This country's forces defeated the Duke of Brunswick at the Battle of Valmy. The Mountain was a faction in this country's legislature that feuded with the Girondins. The Thermidorian Reaction ended the (*) Reign of Terror in this country, which was promulgated by the Committee of Public Safety under Robespierre. For 10 points, Louis XVI's reign of what country was ended by its first revolution?

ANSWER: France [or French Republic; or Republique Francaise]

149-12-69-02104

5. One member of this movement mocked a fallacy called the Courtier's Reply on his webpage, Pharyngula. PZ Myers is in this movement, which developed a rift when Rebecca Watson reported sexual harassment in an elevator. Sam Harris and Daniel Dennett are among the "Four Horsemen" of this ideology's (*) "New" type. The Brights are a subset of this movement, which is publicly defended by the coiner of the term "meme," Oxford biologist Richard Dawkins. For 10 points, name this position defended in Christopher Hitchens's *God is Not Great*.

ANSWER: <u>atheism</u> [or <u>secular</u>ism; or <u>secular</u> humanism; prompt on <u>Darwinism</u>]

6. One literary character from this country can chant a "headache spell" to contract the headband of a companion on their way to Vulture Peak. A novel from this country features the Oath of the Peach Garden and a defeat for its north at Red Cliffs. In another novel from this country, a foursome including a sandy river ogre and Pigsy goes seeking (*) Buddhist scrolls alongside the Monkey King. For 10 points, name this country where *Journey to the West* and *Romance of the Three Kingdoms* were written in traditional characters.

ANSWER: China [or Zhong Guo]

104-12-69-02106

7. This composer's *Piano Trio in A minor* was written in the memory of pianist Nikolai Rubenstein. Rubenstein had earlier refused to play this composer's *Piano Concerto No. 1 in B flat minor*. Another of this composer's works was written for a concert to benefit Serbian soldiers and includes the tune of "God Save the (*) Tsar." This composer of *Marche Slave* depicted Napoleon's failure to invade Russia with an orchestral work that includes "Le Marseillaise" and cannons. For 10 points, name the composer of the *1812 Overture*.

ANSWER: Pyotr Ilyich Tchaikovsky

140-12-69-02107

8. A platform named for this state, which proclaimed that supporters of restricting slavery could not be Democrats, was propagated by this state's politician William Yancey. The Fort Mims Massacre was perpetrated by Red Stick Creeks in this state. Violent tactics were employed by segregationist (*) Bull Connor in this state, and it was also the site of the march on Selma. For 10 points, name this home state of George Wallace where the 16th Street Baptist Church was bombed in Birmingham.

ANSWER: Alabama

040-12-69-02108

9. The principle of least action can be rewritten as the principle of the virtual form of this quantity. The magnetic force on a charged particle cannot contributes 0 of this quantity because velocity is crossed with the magnetic field. It is equal to the line integral of a particle's path through a vector field. The change in this quantity divided by the time elapsed gives (*) power. This quantity is equal to the change in kinetic energy. For 10 points, identify this quantity equal to force times distance and measured in joules.

ANSWER: work

066-12-69-02109

10. This man stopped writing novels due to the outcry over a work in which a boy hangs himself and two other children after saying he "ought not to have been born." The title character of that work separates from his wife Arabella Donn and abandons his theological studies to live with Sue (*) Bridehead. In another of this man's works, the protagonist murders the man who took her virginity after Angel Clare leaves her for a second time. For 10 points, name this novelist of *Jude the Obscure* and *Tess of the D'Urbervilles*.

ANSWER: Thomas **Hardv**

11. In this book, four men eat only vegetables for ten days while refusing royal meat. Three men tested by a golden statue, Shadrach, Meshach, and Abednego, survive a furnace in this book. It includes the dream-image of an idol made of four metals and the phrase (*) "Mene, mene, tekel, upharsin." This book's title character serves Darius and Cyrus after giving a message of doom at Belshazzar's feast by interpreting the writing on the wall. For 10 points, name this Biblical book whose namesake dream-interpreting prophet survives the lion's den.

ANSWER: Book of **Daniel**

104-12-69-02111

12. This body of water was the focus of a planned debate that was cancelled after John Speke died in a mysterious hunting accident. Speke had argued over the source of this river with Richard Burton. One part of this river flows out of Lake Tana. Its two major tributaries are named (*) "White" and "Blue," which meet near Khartoum, the capital of Sudan. The Aswan High Dam is built on it. For 10 points, name this long river whose floods provided much sustenance to the peoples of ancient Egypt. ANSWER: Nile River [or Blue Nile; or White Nile]

052-12-69-02112

13. Higher performance types of this device are made from tantalum. The phase angle of this device is negative ninety degrees, which means its impedance varies as one over angular frequency and its voltage lags the current by ninety degrees. This device is characterized by a parameter equal to (*) charge divided by voltage. In its simplest form, it consists of two parallel plates. For 10 points, identify this circuit component that stores charge in an electric field and whose characteristic parameter is measured in farads.

ANSWER: capacitor

066-12-69-02113

14. A 1948 coup in this city made prime minister Klement Gottwald president of its country, beginning forty years of Communist rule. Jan Palach burned himself alive in this city's Wenceslas Square to protest its occupation. On the twentieth anniversary of that occupation, protestors symbolized opening new doors by jingling keys. Warsaw Pact nations invaded this city after (*) Alexander Dubcek's attempts to open government to non-Communists. For 10 points, name this capital whose 1968 "Spring" was ended by Soviet forces.

ANSWER: **Prague** [or **Praha**]

121-12-69-02114

15. One of this man's works begins with characters getting advice from the ridiculous-looking "Hoopoe." That work features a boy who arrives at a city in order to beat up his father. In one of his plays, two men try to create the ideal society of Cloud (*) Cuckoo Land. In another of his works, Dionysus travels to the underworld to resurrect Euripides, while the title creatures are a chorus who chant "brekekekex-koax-koax." For 10 points, name this Greek comedic playwright of *The Birds* and *The Frogs*. ANSWER: <u>Aristophanes</u>

052-12-69-02115

16. With Joe Zawinul on the electric piano and Wayne Shorter on tenor saxophone, this musician created an album with tracks like "John McLaughlin" and "Pharaoh's Dance" that pioneered the field of Jazz Rock. He also released an album in which his traditional pianist Bill Evans was replaced on (*) "Freddie Freeloader" by Wynton Kelly; that album also featured the saxophonists Cannonball Adderley and John Coltrane. For 10 points, name this jazz trumpeter and bandleader, the artist behind the albums *Birth of the Cool* and *Kind of Blue*.

ANSWER: Miles **Davis**

17. One monarch of this name created the Order of the Garter and, with John II of France, signed the Treaty of Bretigny. Another monarch of this name appointed Stigand as the Archbishop of Canterbury, causing conflict with several popes. That monarch of this name had married Edith, daughter of a powerful earl of Wessex, and was succeeded by (*) Harold Godwinson. For 10 points, identify this shared name of several English monarchs, one of whom was known as "the Confessor." ANSWER: Edward III of England [or Edward the Confessor]

126-12-69-02117

18. This writer's friendship with the author of *Moby-Dick* influenced that novel, which is dedicated to him. In one of his novels, Holgrave falls in love with Phoebe, ending Matthew Maule's curse on the residence of the Pyncheons. In the most famous work by this author of *The* (*) *House of the Seven Gables*, Hester Prynne is cast out by her community for her affair with Arthur Dimmesdale. For 10 points, name this American author of *The Scarlet Letter*.

ANSWER: Nathaniel **Hawthorne**

080-12-69-02118

19. One type of this tissue is composed of trabeculae. Another type of this tissue includes tiny channels called canaliculi as well as larger vertical channels called Volkmann's canals and horizontal channels called (*) Haversian canals. This tissue occurs in spongy and compact forms. The latter type is formed by osteoblasts, and its functional unit is the osteon. For 10 points, name this tissue that comprises the fibula, the clavicle, and other elements of the skeletal system.

ANSWER: **bone** tissue [or **osseous** tissue; prompt on "connective" tissue]

014-12-69-02119

20. This painter depicted twelve robed angels in a circle beneath the orange opening of heaven in his *Mystic Nativity*. This painter also created a work in which Mercury points upward, inspecting an orange grove. In that painting, the pursued maiden Chloris attempts to hide behind Flora and the three (*) Graces dance in a circle. This man's best known work features the title goddess standing on a conch shell on the seashore. For 10 points, identify this Italian Renaissance master who painted *Primavera* and *The Birth of Venus*.

ANSWER: Sandro Botticelli [or Alessandro di Mariano di Vanni Filipepi]

189-12-69-02120

21. Members of this phylum have specialized RNA-rich stem cells called neoblasts. In this phylum, females' reproductive systems are divided into ovaries and vitelline glands, which contain yolk. In humans, members of this phylum can cause schistosomiasis. The bodies of members of this phylum are divided into (*) proglottids, each of which usually has both male and female reproductive organs. Classes in this phylum include turbellarians, planarians, and flukes. For 10 points, name this phylum of flatworms.

ANSWER: **Platyhelminthes** [or **flatworm** until it is read]

014-12-69-02121

22. This poet wrote, "I cannot find my way: there is no star in all the shrouded heavens anywhere," in his "Credo." Another of his poems describes a figure who "coughed and called it fate and kept on drinking." In addition to writing about a "child of scorn" from (*) Tilbury Town in his "Miniver Cheevy," this poet wrote of a man who, "one calm summer night went home and put a bullet through his head." For 10 points, identify this American poet of "Richard Cory."

ANSWER: Edward Arlington Robinson

23. This President arranged an informal cessation of Japanese immigration called the Gentlemen's Agreement. He appointed Gifford Pinchot to head the newly created Forest Service. He mediated the negotiations of the Treaty of Portsmouth. This President's domestic policy was known as the Square Deal, and he began construction of the (*) Panama Canal. He expanded the Monroe Doctrine with his namesake "corollary." For 10 points, name this trust-busting President said to "speak softly and carry a big stick.

ANSWER: Theodore Roosevelt [or Teddy Roosevelt; or TR; prompt on Roosevelt]



- 1. In this movie, a letter discussing one suitor's love for Brooks Robinson is mailed by Becky, who loves the movie *An Affair to Remember*. For 10 points each:
- [10] Name this movie in which Annie Reed is infatuated with Sam Baldwin, who appears on a radio talk show after his son Jonah called in. At the end of this movie, Annie and Sam meet at the top of a building on Valentine's Day.

ANSWER: Sleepless in Seattle

[10] Sam Baldwin is played by this actor in *Sleepless in Seattle*. This actor played Captain John H. Miller, who dies while trying to save Private Ryan, in *Saving Private Ryan*.

ANSWER: Tom Hanks

[10] This is the skyscraper that Annie and Sam meet at the top of on Valentine's Day. This Art Deco building was built at the same time as the Chrysler Building.

ANSWER: **Empire State** Building

149-12-69-02201

- 2. This number is the base for the natural logarithm. For 10 points each:
- [10] Name this transcendental number, which is approximately 2.718.

ANSWER: e

[10] The exponential function, or e to the x, does not change under this operator. Applying this operator to a function at a point gives the slope of the line tangent to the function at that point.

ANSWER: the **derivative** [or **differentiation**; or **d/dx**]

[10] This function, used in modeling population growth, is equal to one over one plus e to the negative t.

ANSWER: the logistic function

080-12-69-02202

3. This god traded with an infant Hermes to obtain the lyre after Hermes stole his cattle. For 10 points each: [10] Name this god of light and the sun, who slew the Python at Delphi.

ANSWER: Apollo

[10] One of Apollo's sons was this figure, who was so renowned at medicine that he found a way to revive the dead, an action that caused Zeus to kill this figure.

ANSWER: Asclepius

[10] Apollo's other loves included this youth. After Apollo accidentally killed him with a discus, a flower grew where his blood was spilt.

ANSWER: **Hyacinth**us

- 4. This experiment found that rats would pass over a piece of cheese that had been moved closer to them than they were accustomed. For 10 points:
- [10] Name this experiment named for the sound which rats made when they ran headlong into a wall in a maze when it was moved closer than in a series of prior runs.

ANSWER: kerplunk experiment

[10] In this other experiment, the title baby was classically conditioned to be afraid of furry objects when loud noise sounded whenever he touched one.

ANSWER: Little Albert experiment

[10] The kerplunk experiment and Little Albert experiment were conducted by this leading behaviorist psychologist.

ANSWER: John Broadus Watson

014-12-69-02204

- 5. This author wrote *Miles Gloriosus* and *Menaechmi*. For 10 points each:
- [10] Name this ancient Roman playwright who wrote about how a slave gets back his master's beloved woman in his play *Pseudolus*.

ANSWER: Titus Maccius Plautus

[10] Plautus is considered to be one of the finest Roman playwrights in this genre alongside Terence. It is contrasted with tragedy.

ANSWER: comedy

[10] Plautus's *Menaechmi*, about two sets of similarly named twins, provided the basis for this Shakespeare play whose main characters hail from Ephesus and Syracuse.

ANSWER: A Comedy of Errors

040-12-69-02205

6. Popes Leo X and Clement VII belonged to this family. For 10 points each:

[10] Name this banking family that dominated Florence during the fifteenth century.

ANSWER: Medici

[10] This Medici, known as "the Magnificent," was targeted by the Pazzi Conspiracy and opposed by Savonarola. He was known as a great patron of the arts.

ANSWER: Lorenzo de Medici [or Lorenzo the Magnificent; or Lorenzo il Magnifico]

[10] This Medici, Lorenzo's great grandfather, brought the family to prominence and founded the Medici Bank. He was the father of Cosimo.

ANSWER: Giovanni de Medici

014-12-69-02206

- 7. Answer the following about some ancient Greek sculptors, for 10 points each.
- [10] A man is about to release what object in the sculptor Myron's depiction of an Olympic athlete in action?

ANSWER: discus

[10] Phidias sculpted a giant seated statue of what chief Greek god in the temple dedicated to him in Olympia?

ANSWER: **Zeus** [or **Jupiter**]

[10] This sculptor illustrated his namesake "canon" of perfect proportions in his statue *Doryphoros*, or *Spear-Bearer*.

ANSWER: **Polykleitos** [or **Polyclitus**]

- 8. In this type of reaction, its namesake "state" increases for an element. For 10 points each:
- [10] Name this type of reaction in which a compound loses electrons.

ANSWER: oxidation

[10] One common oxidizing agent is this triatomic allotrope of oxygen, which forms a layer in the stratosphere.

ANSWER: ozone

[10] Another frequently-used oxidizing agent is the potassium salt of this anion. This ion includes a metal in its +7 oxidation state and is dark purple in solution.

ANSWER: **permanganate** [or **MnO4**-]

190-12-69-02208

- 9. The participants in this event were marching to Orlando Stadium to protest a decree that mandated teaching be done half in English and half in Afrikaans. For 10 points each:
- [10] Name this 1976 bout of police violence that is now commemorated on the date of June 16th.

ANSWER: Soweto Uprising

[10] The Soweto Uprising occurred in this country, where apartheid kept people of African descent in positions of social inferiority.

ANSWER: Republic of **South Africa**

[10] This bishop supported economic sanctions against South Africa after the violence of the Soweto Uprising, and he went on the win the Nobel Peace Prize.

ANSWER: Desmond Mpilo **Tutu**

040-12-69-02209

- 10. For 10 points each, answer the following about *Hamlet*.
- [10] Hamlet tells this daughter of Polonius to "get thee to a nunnery" after his "To be or not to be" soliloquy. She becomes mad after Polonius's death, and drowns in a brook.

ANSWER: **Ophelia**

[10] Late in the play, a gravedigger exhumes the skull of this jester, prompting Hamlet to call this man "a fellow of infinite jest."

ANSWER: **Yorick**

[10] Hamlet claims to Guildenstern to be able to tell this type of bird from a handsaw "when the wind is southerly," stating that he is "but mad north-north-west."

ANSWER: a hawk

126-12-69-02210

- 11. This man believed in both "adaptive" and "complexifying" forces, which worked to change organisms over time. For 10 points each:
- [10] Name this author of *Zoological Philosophy*, who proposed a form of evolution which proceeded via inheritance of acquired characteristics.

ANSWER: Jean-Baptiste <u>Lamarck</u> [or Jean-Baptiste Pierre Antoine de <u>Monet</u>, Chevalier de la Marck] [10] Lamarck's theories were eclipsed by both the idea of natural selection and the work begun by this man, who propounded the laws of segregation and independent assortment in "Experiments on Plant Hybridization."

ANSWER: Gregor Johann Mendel

[10] A late disciple of Lamarck was this longtime head of the Soviet Institute of Genetics, who proposed to use acquired characteristics to improve crop yields.

ANSWER: Trofim Denisovich Lysenko

- 12. This philosopher was excommunicated by the Jewish community of Amsterdam in 1656. For 10 points each:
- [10] Name this Dutch Jewish philosopher who advocated for total freedom of thought and speech in his work *Tractatus Theologico-Politicus*.

ANSWER: Benedict Spinoza [or Baruch Spinoza

[10] Spinoza is sometimes associated with this religious position, which generally holds that the universe as a whole is God and that there is no God but the combined entities in the universe.

ANSWER: pantheism

[10] Spinoza wrote this work written in the style of Euclid's *Elements*. It includes sections such as "Of Human Bondage" and shares its name with a subdivision of philosophy that is concerned with correct behavior.

ANSWER: **Ethics** [or **Ethica**]

030-12-69-02212

- 13. One character in this play drowned her illegitimate child in a lake. For 10 points each:
- [10] Name this play in which Garcin, Ines, and Estelle are trapped in what is identified as hell, though the setting is a normally furnished hotel room.

ANSWER: *No Exit* [or *Huis Clos*]

[10] No Exit was written by this French author of the short story collection The Wall.

ANSWER: Jean-Paul Sartre

[10] In No Exit's most famous line, Garcin provides this definition for hell.

ANSWER: other people [or les autres]

040-12-69-02213

- 14. This man purged Milan Gorkic, and he was in power during the Informbiro period in his country. For 10 points each:
- [10] Name this longtime leader of a now nonexistent country who helped found the Non-Aligned Movement.

ANSWER: Josip Broz <u>Tito</u> [or Josip <u>Broz</u>]

[10] Tito ruled this country that fell apart in the 1990s with such conflicts as the Bosnian War of Independence and the Croatian War of Independence.

ANSWER: Socialist Federal Republic of **Yugoslavia** [or Socijalisticka Federativna Republika **Jugoslavija**] [10] In 1948, Tito split with this Soviet ruler, who was in power during World War II.

ANSWER: Joseph <u>Stalin</u> [or Iosif Vissarionovich <u>Stalin</u>; or Ioseb <u>Dzhugashvili</u>]

014-12-69-02214

- 15. This substance is shared by a man and a woman sitting at a table in a drab restaurant. For 10 points each:
- [10] Name this mildly hallucinogenic alcoholic beverage much beloved by French Impressionist painters.

ANSWER: absinthe

[10] This painter of *L'Absinthe* is also known for works such as *Place de la Concorde* and *Cotton Exchange* at *New Orleans*.

ANSWER: Edgar **Degas** [or Hilaire-Germain-Edgar **De Gas**]

[10] Degas also painted a work set at a "class" attended by many young women with this profession, a favorite subject of the artist.

ANSWER: **dancer**s [or **ballerinas**]

- 16. Some records indicate that this man's disappearance led to the murder of Lucius Cornelius Cinna. For 10 points each:
- [10] Name this Roman general who won the Battle of Dyrrachium and was known as "the Great."

ANSWER: **Pompey** the Great [or Gnaeus **Pompeius** Magnus]

[10] Pompey was an ally and then rival of this man who famously crossed the Rubicon and was assassinated on the Ides of March.

ANSWER: Gaius <u>Julius Caesar</u> [prompt on <u>Caesar</u>]

[10] Caesar surveyed the dead and declared, "Hoc voluerunt," or "They would have it so," after this 48 BCE battle in which he decisively defeated Pompey.

ANSWER: Battle of **Pharsalus**

014-12-69-02216

- 17. For a single slit, the displacement length of a wave due to this effect can be calculated using the wavelength and slit distance. For 10 points each:
- [10] Name this effect, in which a wave bends around an obstacle or through an opening.

ANSWER: diffraction

[10] Two slits were used to create a diffraction pattern in this scientist's namesake experiment. The results of this experiment showed alternating light and dark bands.

ANSWER: Thomas **Young**

[10] In this type of diffraction named after a scientist, the distance from the slit to the screen is not important. Instead, the angle at which the light approaches is considered, and the Fresnel number is very small.

ANSWER: **Fraunhoffer** diffraction [or **far field** diffraction]

140-12-69-02217

- 18. After carrying out orders to burn his own house down, this character then flees the city after incinerating his boss Captain Beatty and escaping the mechanical hound. For 10 points each:
- [10] Name the protagonist of *Fahrenheit 451*, a fireman who rebels against his job to burn books after conversations with Clarisse McClellan.

ANSWER: **Guy** Montag [or Guy **Montag**]

[10] Fahrenheit 451 is a novel by this 20th-century author, who also wrote Dandelion Wine and Something Wicked This Way Comes.

ANSWER: Ray **Bradbury** [or Ray Douglas **Bradbury**]

[10] Guy Montag seeks out this man, an English professor, in the second part of the novel. He gives Montag an earpiece to communicate with after Montag brings a copy of the Bible to him.

ANSWER: Faber

140-12-69-02218

- 19. For 10 points each, answer the following about slave uprisings in the Americas.
- [10] This man claimed to have experienced mystical visions and led a rebellion in Virginia resulting in the deaths of sixty whites on August 21, 1831.

ANSWER: Nat Turner

[10] An 1841 Supreme Court case determined the fates of the escaped slaves who rebelled aboard this Spanish ship.

ANSWER: Amistad

[10] This freed slave planned an 1822 rebellion that was thwarted when he and the other leaders were arrested in Charleston before the uprising began.

ANSWER: Denmark **Vesey**

- 20. This organ is one of the production sites for the hormone Thrombopoietin. For 10 points each:
- [10] Name this organ, which produces bile and lies below the diaphragm. It is the largest internal organ and if it fails, can be treated with dialysis.

ANSWER: the **liver**

[10] Frequently caused by alcoholism, this result of liver disease is when liver tissue is replaced by scar tissue and fibrosis. It is often preceded by hepatitis.

ANSWER: cirrhosis

[10] The liver can store this vitamin, also known as cobalamin, which plays a role in cell metabolism and fatty acid synthesis. Pernicious anemia can cause a deficiency in this vitamin.

ANSWER: Vitamin **B12**

052-12-69-02220

- 21. Richard Rorty and his student Robert Brandom are part of this philosophical movement. For 10 points each:
- [10] Identify this American school of philosophy stemming from the late nineteenth century. It seeks to analyze hypotheses by studying their practical consequences, and its important theorists include John Dewey.

ANSWER: pragmatism

[10] This American pragmatist authored *Pragmatism* and *The Principles of Psychology*. He stated that the history of philosophy was "a certain clash of human temperaments."

ANSWER: William James

[10] Another Pragmatist, Charles Sanders Peirce ("purse"), wrote an essay about how to make these entities "clear." George Berkeley stated that reality only consists of minds and these entities.

ANSWER: <u>idea</u>s [or <u>our idea</u>s, as the title of the work is "How to Make Our Ideas Clear"]