

Tossups

- This thinker claimed that, because the welfare state restricts free time, services, and intelligence, it is one of “unfreedom”; that claim appears in a chapter titled “The Closing of the Political Universe”. This thinker proposed that the radical qualities of art stem from transcendence of social determination in a work critiquing Orthodox Marxist (*) aesthetics. Another work by him discusses how false needs and modern consumer culture help create a “flattening” out of the antagonism between culture and social reality, through a process of “repressive desublimation”. For 10 points, name this author of *The Aesthetic Dimension*, a Frankfurt School philosopher who also wrote *One-Dimensional Man* and *Eros and Civilization*.**

ANSWER: Herbert Marcuse
- The treaty resolving the *Alabama* claims also resolved still ambiguous points of this issue. William Allen resigned from the Senate committee he chaired after this issue was settled with terms he believed unacceptable. An 1818 treaty pushed resolution of this issue to the future by at least ten years by declaring that there would joint occupancy in the area under dispute. Resolving this issue was one of the four goals set out by James (*) K. Polk upon assuming the presidency. Louis McLane represented the United States in negotiations over it, eventually settling for a line well below Russian territory. Supporters of a side in this conflict used the slogan “Fifty-Four Forty or Fight!”. For 10 points, name this dispute between the United States and Great Britain over a Northwest boundary.**

ANSWER: Oregon boundary dispute [or obvious equivalents that mention Oregon]
- In Royall Tyler’s *The Contrast*, Jonathan watches a performance of this play, but believes himself to have observed a real family at church. One character in this play declared that he has only been given “avadavats and Indian crackers”, when in fact he was sent 12,000 pounds. A money-lending Jew named Moses helps another character in this play disguise himself as “Mr. (*) Premium” to determine his nephew’s loyalty. Lady Teazle is unfaithful to Sir Peter with his adopted son, but resolves to leave Lady Sneerwell’s group at the end of this play. For 10 points, name this play about Charles and Joseph Surface, as well as the title group of gossipers, written by Richard Brinsley Sheridan.**

ANSWER: *The School for Scandal*
- Prosimian primates that express this behavior have two K layers, whereas the only higher primates to display this behavior are part of genus *Aotus*, so-named because their ears are very hard to see. Mayfly drift is most common when they exhibit this behavior. Gordon Walls came up with a namesake “bottleneck hypothesis” to explain how placental mammals evolved this behavior in the Mesozoic era. Several species falsely thought to display this behavior are instead (*) crepuscular. In animals that display this behavior, rhodopsin synthesis far outpaces its breakdown, and there are more rods than cones. For 10 points, name this behavior, not exhibited by diurnal animals, but instead by bats, owls, and other things that hunt at night.**

ANSWER: nocturnality [or word forms; or obvious equivalents until “at night” is read]
- In a painting by this artist, the back of a statue of a man in a coat can be seen next to a wooden beam holding up a blueprint of a city. This artist founded a short-lived movement whose only other member was second-string Futurist Carlo Carra. A box composed of multicolored triangles and a shrouded statue of Apollo appear in another of painting by this artist, whose subjects are a sitting statue with a black bowling pin and a standing one with a red balloon for heads. Guillaume Apollinaire used the word (*) “metaphysical” to describe paintings by this artist of *The Double Dream of Spring*. A little girl rolls a wheel down an abandoned street towards an ominous shadowy figure in a painting by this man. For 10 points, identify this Italian surrealist artist of *The Disquieting Muses* and *Melancholy and Mystery of a Street*.**

ANSWER: Giorgio de Chirico

6. **This person is the first namesake of the statement that the current, which varies in time, is equal to charge times drift velocity, which varies in time, over the length between the two electrodes from whence the current is measured. That theorem finds wide application in photodetectors and is named with Simon Ramo. This person is also the first namesake of a recombination process resulting from the creation of trap levels by impurities or defects, naming it with with William Read and Robert Hall. He derived an equation that sets the (*) saturation current times quantity exponential of the ratio of voltage and thermal voltage minus one, end quantity, equal to the current, which is his diode equation. For 10 points, name this genius best known for “helping” John Bardeen and Walter Brattain invent the first transistor at Bell Labs.**

ANSWER: William Shockley

7. **In 1957, the US’s oldest aquarium was moved to this place. A recent book by Claire Prentice describes how, in 1905, a tribe of Igorot people was placed in this place’s Luna Park. This place is easily accessed via Stillwell Avenue. Diane Arbus’s photos of this place include *Masked Boy with Friends* and *Two Girls on a (*) Beach*, while “I Am Waiting” and “Junkman’s Obbligato” are two poems from a collection named for it by Lawrence Ferlinghetti. This place was originally named for the diversity of rabbits found in it. *Requiem for a Dream* is set in this place, where Nathan’s Famous hot dogs originated. For 10 points, name this so-called “island” in New York City known for its amusement parks.**

ANSWER: Coney Island [prompt on “New York (City)” or “Brooklyn”]

8. **In 1983 in this country, the Catholic priest Christian Delorme helped to organize the 50-day-long “March for Equality and Against Racism”. An earlier Catholic priest in this country started a charity organization that has grown into Emmaus International. In 1998, a politician in this country gained fame for giving a five-hour speech opposing civil unions while holding a Bible; that politician is (*) Christine Boutin. An 1801 concordat, which has otherwise been ended, is still followed in a region of this country because that region was held by a foreign power in 1905, when this country passed a law that stopped government funding of religions. It currently follows the secular “laicity” policy. For 10 points, name this European country that established secularism during its Third Republic.**

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

9. **A character created by this author refers to only two people as “saints;” these are an old, asthmatic Spaniard and an old neighbor who tears up paper on his balcony for cats to play with. In a short story by this author, the message “You handed over our brother. You will pay.” is left on the chalkboard of a schoolmaster after he allows a criminal to go free. In a novel by this author, *The Just Judges*, a panel of the (*) Ghent Altarpiece, is stolen by the “judge-penitent” Jean-Baptiste Clamence. A novel by this author of the short story “The Guest” sees Father Paneloux preach against a disease that Bernard Rieux struggles to keep contained in Oran. For 10 points, name this existentialist author of *The Fall* and *The Plague*, who wrote about Mersault shooting an Arab in *The Stranger*.**

ANSWER: Albert Camus

10. **In the fourth movement of Shostakovich’s Ninth Symphony, this instrument plays solos between brass passages; later, it opens the fifth movement. In *The Young Person’s Guide to the Orchestra*, the variation for this instrument is a march. Two of them introduce the song “What comes there from on high?” in the *Academic Festival Overture*. Strings and this instrument open the overture to *The (*) Marriage of Figaro*. In *The Elixir of Love*, a solo for this instrument introduces the main theme of the aria “Una furtiva lagrima.” It plays a solo in the lullaby from *The Firebird*. *The Rite of Spring* opens with a solo for this instrument, which represents the grandfather in *Peter and the Wolf*. For 10 points, name this instrument whose “contra” variety is the lowest-pitched woodwind instrument.**

ANSWER: bassoons [or fagotto; or fagotti]

11. **A controversial sermon in this city on Bastille Day considered Samuel’s promise to teach “the right and the good” after giving Israel a king. That speech was titled “National Apostasy.” In this city, the annotated *Library of the Fathers* was produced. John Keble and Edward Pusey controversially promoted the doctrine of Real Presence in this city, as part of a movement supported by the (*) *Tracts for the Times* series. The author of *Apologia Pro Vita Sua*, Cardinal Newman, promoted a religious movement named for this city, which sought to incorporate High Church elements into Anglicanism. Queen Mary had Thomas Cranmer burnt at the stake in it. For 10 points, name this “city of dreaming spires,” a university town in England.**
ANSWER: Oxford
12. **The somewhat difficult task of matching a bounce to its source in this system can be made very easy by using VERP. Validation in this system is popularly implemented using a combination of SPF and DKIM. A special type of DNS record called an MX record is used for this system to determine routing. A protocol used for this system achieves real-time updates by using the IDLE extension. All of its implementations use the (*) SMTP protocol for sending data. A crippling problem with this system was resolved when some genius hit upon the idea of using naive Bayes classifiers to circumvent it. Delivery status notifications are the most common implementation of return receipts for this system, and its MIME extension allowed for the inclusion of attachments. For 10 points, name this system crippled in its early days by spam.**
ANSWER: email [or electronic mail]
13. **A “revealed” version of one of this man’s concepts can be measured with the Balassa index. Joseph Schumpeter criticized John Maynard Keynes and this man for building abstract models, which constitutes his namesake “vice.” One of his theories is fleshed out in the Heckscher-Ohlin model. He posited that government spending has little effect on the decisions of consumers, which is his namesake (*) equivalence. He stated that an increase in the demand for labor occurring faster than the increase in population could raise wages, and considered a situation that arises when countries have different opportunity costs for producing a good. For 10 points, name this author of *Principles of Political Economy and Taxation*, who formulated the iron law of wages and the law of comparative advantage.**
ANSWER: David Ricardo
14. **Alexander Cuza promulgated the agrarian reform of this country before the “monstrous coalition” forced him out. Russia reinforced this country’s local lords by imposing the Organic Statute on it in the 1830s. In the 20th century, the National Renaissance Front became its only legitimate party, under a king from the Hohenzollern-Sigmaringen Dynasty. Operation (*) Tidal Wave targeted the oil fields around this country’s Ploesti area. Carol II was a king of this country that was home to the fascist Iron Guard. In the late 20th century, a communist dictator of this nation was executed along with his wife Elena on Christmas Day. For 10 points, name this Eastern European nation ruled until 1989 by Nicolae Ceausescu (chow-SHES-koo).**
ANSWER: Romania
15. **While in the waiting room of a doctor’s office, one of this novel’s protagonists blows a bead out of her nose, before having to see the doctor. A character in this book talks about “Anglophilic history” by using the metaphor of a house, which the protagonists misinterpret literally to mean the house of Kari Saipu. During a performance of (*) *The Sound of Music*, one of its protagonist is molested by the Orangedrink Lemondrink man. Chacko owns Paradise Pickles, a company started by Mammachi in it. Sophie drowns in this work due to the actions of the protagonists, but Baby Kochamma forces them to blame it on the title character, an untouchable named Velutha. For 10 points, name this novel about the incestuous twins Rahel and Estha, by Arundhati Roy.**
ANSWER: *The God of Small Things*

16. A scene in this opera juxtaposes a chorus crying out for their day of vengeance with the soprano singing “Ah, bring back to me the beauty of our first love”. At the season-opening 1958 performance of this opera at the Rome Opera House, Maria Callas infamously cancelled after singing only the first act. A character in this opera prays to her god to protect her from her love, only to immediately afterwards agree to run away with the man she loves in the duet (*) *Va, Crudele*. Its second act opens with the protagonist contemplating killing her children, to prevent them from being taken by Adalgisa, the new lover of Pollione. The title character use a sickle to cut the holy mistletoe in her aria *Casta Diva*. For 10 points, what *bel canto* opera about a druid priestess was composed by Vincenzo Bellini?
ANSWER: Norma
17. While driving around a lake, one character created by this author reminisces about a dead friend who argues that the existence of God is “necessary as an idea.” Another character created by this author wears a necklace of human tongues shortly after refusing to carry a gun while out on an ambush. In a novel by this author, the Third Squad goes after a soldier walking to Paris, after (*) Paul Berlin suggests that they retrieve him. In the first short story of a collection by this author, Lieutenant Jimmy Cross blames himself for the death of Ted Lavender because Cross was focusing on his unrequited love for Martha. The title objects of that short story collection by this author include dog tags, morphine, and fear. For 10 points, name this author of *Going After Cacciato* and *The Things They Carried*.
ANSWER: Tim O’Brien [or Wiliam Timothy O’Brien]
18. A constant linked with this property is in the denominator of a term that is square-rooted in the alpha constant of the Soave modification. The Baron de la Tour made observations of this property by listening to the sound of a flint ball rolling around in a sealed cannon. For solutions, this property bifurcates into an upper consolute and a lower consolute version. For pure substances, the first and second partial derivatives of (*) pressure with respect to volume are both zero at the namesake isotherm of this property. A common method of decaffeination exploits this property of carbon dioxide. For water, this property is 647 Kelvins and 22 megapascals. For 10 points, name this point above which the liquid and gas states of matter are indistinguishable.
ANSWER: critical point [or critical temperature; or critical pressure]
19. This man travels to Lake Avernus to get the protection of King Thesprotus. Hyginus recounts how this man is seized at Delphi and thrown into prison to await his death, until he recognizes the sword his would-be killer is holding. This man is tricked into giving up his throne when Zeus makes the sun move backwards in the sky. A literary work titled for him opens with a Fury summoning the shade of his grandfather Tantalus. (*) Seneca wrote a play about this man, who conspires with Aerope to seize the throne from his brother. He rapes his daughter Pelopia to seek revenge against a man who presented him with a platter bearing some severed hands and heads. For 10 points, name this father of Aegisthus whose sons were killed and served to him in a feast by his brother Atreus.
ANSWER: Thyestes
20. A leader of this country was assassinated in 1995 by his bodyguard Lambarek Boumaarafi. A consul was struck insultingly after a payment from two Jews was deferred during the reign of this country’s last Ottoman provincial ruler, Hussein Dey. During this country’s civil war, President Mohamed Boudiaf died and fighting occurred between the army and the GIA. An invasion of this country was where the (*) *zoaves* units first served. The first post-independence leader of this country was Ahmed Ben Bella. During this country’s war for independence, the FLN fought the *ped-noirs* and the French military. For 10 points, name this North African country whose independence was guaranteed in the Evian Accords.
ANSWER: Algeria [or People’s Democratic Republic of Algeria]

Bonuses

1. Many square-planar complexes, such as Vaska's complex, violate this rule first proposed by Irving Langmuir. For 10 points each:
[10] Identify this rule, which can be thought of as an extension of the octet rule to transition metal complexes.
ANSWER: **18-electron** rule
[10] Complexes with 18 electrons have the same electronic configurations as these pretty stable elements, which include neon, helium, and argon.
ANSWER: **noble** gases [or **Group 18**; or **Group 8A**]
[10] A whopping 20 electrons are present in the metallocene of this element, which is part of a phosphine complex that catalyzes the Shell higher olefin process.
ANSWER: **nickel** [or **Ni**]
2. John Steinbeck's work of this type ends by paraphrasing St. John in saying "In the end is the Word, and the Word is Man—and the Word is with Men". For 10 points each:
[10] Name this genre. V.S. Naipaul's work in this genre is a brief meditation on his wristwatch breaking, and Faulkner's work of this kind declares that "man will not merely endure: he will prevail".
ANSWER: **Nobel** prize banquet **speech** [or obvious equivalents, such as **Nobel prize acceptance speeches**; do NOT accept "Nobel lecture", which is an altogether different speech]
[10] In 1974, the Nobel prize was awarded jointly to Eyvind Johnson and Harry Martinson, both authors from this country, whose Academy determines the winner. Its won more Nobel Prizes in Literature than all of Asia.
ANSWER: Kingdom of **Sweden**
[10] The 2013 Nobel Laureate in Literature was this Canadian author of the short story collections *Dance of the Happy Shades* and *The Moons of Jupiter*.
ANSWER: Alice **Munro** [or Alice Ann **Munro**; or Alice **Laidlaw**]
3. The findings of this committee raised public support for the Federal Reserve Act, which was passed in the same year as this committee filed its report. For 10 points each:
[10] Name this 1912 to 1913 congressional subcommittee formed to investigate a "money trust" in the banking system.
ANSWER: **Pujo** Committee
[10] Arsene Pujo, the namesake of the committee, was a Senator from this state. A different man from this state planned to combat wealth concentration by confiscating all incomes over \$1 million.
ANSWER: **Louisiana**
[10] This Louisiana governor and rival of FDR created the "Share Our Wealth" plan to confiscate all income over \$1 million and make "Every Man a King" through redistribution.
ANSWER: Huey **Long**
4. This film includes a dangerous stunt in which actor Yakima Canutt jumped from his steed to a front horse, then fell and passed under all six horses without dying. For 10 points each:
[10] Name this John Ford film in which the John Wayne-played Ringo Kid falls in love with the prostitute Dallas, who is part of an entourage heading to Lordsburg when they are beset by a savage Apache attack.
ANSWER: **Stagecoach**
[10] In this other collaboration between John Ford and John Wayne, a romantic comedy set in Ireland, Wayne's character Sean Thornton shovels his dowry money for Mary Kate into a furnace, and gets into a memorable protracted fistfight with her brother Will, which at one point is broken off so that they can get drunk.
ANSWER: *The **Quiet Man***
[10] In his film *Wee Willie Winkie*, Ford cast this omnipresent child actress, who melted her way into America's heart in *Bright Eyes*, *Curly Top*, and *Heidi*.
ANSWER: Shirley **Temple** [or Shirley Temple **Black**]

5. These people originated the spiritual “Go Down, Moses.” For 10 points each:
[10] Name these people whose arrival in the Americas resulted in the creation of Yoruba-based traditions such as Candomblé, Santería, and Voodoo.
ANSWER: African/black **slaves** [prompt on less specific answers that do not mention **slaves**]
[10] An instance of this practice being carried out by practitioners of Santería resulted in a Supreme Court case that held a local ordinance from Florida was unconstitutional.
ANSWER: **chicken sacrifice** [or obvious equivalents that mention **chickens**]
[10] This other African group engages in chicken sacrifice by poisoning the bird and determining the answer to a question called a *benge* based on whether the fowl survives or not.
ANSWER: **Azande** [or **Zande**]
6. This outburst was caught on microphone after its speaker hit a fadeaway two-pointer over Patrick Patterson to put his team up 7 with a minute to go. For 10 points each:
[10] Give the enthusiastic six-word sentence that Paul Pierce shouted at the end of Game 7 in the 2014 Nets-Raptors series.
ANSWER: “**That’s why they got me here!**” [or “**That’s why they brought me here!**”]
[10] During the offseason, Ernie Grunfeld got Paul Pierce here by signing the veteran to this team as a cheaper replacement for Trevor Ariza. John Wall and Bradley Beal got this team a surprise first-round win over the Bulls.
ANSWER: Washington **Wizards** [or **Washington** Wizards]
[10] During the Nets-Raptors series, this global ambassador for the Toronto Raptors was caught rolling his pants for lint courtside. The NBA fined this man over the summer for tampering with Kevin Durant.
ANSWER: **Drake** [or Aubrey Drake **Graham**]
7. The DALI method is a way of accomplishing this goal using information about secondary and tertiary structures. For 10 points each:
[10] Name this bioinformatics task, which makes it easy to compare the similarities between long stretches of RNA, DNA, or protein code.
ANSWER: **sequence alignment** [or **structural alignment**]
[10] Mismatches in a single nucleotide in two sequences known to be similar might indicate the point type of this abnormality, which can just occur randomly or be due to DNA damage or errors in replication.
ANSWER: **mutations**
[10] Nucleotides and peptides are represented by single-letter codes in this ubiquitous bioinformatics text-based format, introduced in a namesake software package developed by William R. Pearson and David J. Lipman.
ANSWER: **FASTA** format
8. The narrator of this novel feels guilty that his inheritance comes from the long ago sale of a family slave. For 10 points each:
[10] Name this novel in which Stingo becomes infatuated with the title Polish Holocaust survivor, who herself is in a destructive relationship with the schizophrenic Nathan Landau.
ANSWER: **Sophie’s Choice**
[10] At the conclusion of *Sophie’s Choice*, Stingo reads this poet’s “Ample make this bed” at Sophie’s grave. This poet described a “little bird that keeps so many warm” in “Hope is the thing with feathers”.
ANSWER: Emily **Dickinson**
[10] Dickinson extensively corresponded with this radical abolitionist, who became her literary mentor. With Mabel Loomis Todd, he published a posthumous volume of Dickinson’s poetry, re-edited to be more conventional.
ANSWER: Thomas Wentworth **Higginson**

9. **Note to moderator: do not read the alternate answers to the first part.**

This empire was created when an Iranian satrapy of the Seleucid empire revolted. For 10 points each:

[10] Name this empire whose ruler Mithradates I conquered Mesopotamia, Media, and Persia. It crushed Crassus at Carrhae and was the target of a never-executed expedition by Julius Caesar.

ANSWER: Parthian Empire [or Arsacid Empire]

[10] This dynasty ruled the Parthian empire until its demise. It was named for the leader of the Parni tribe who revolted against the reign of Antiochus II.

ANSWER: Arsacid dynasty [or Arshakian dynasty]

[10] The first of these Roman political regimes was brought to an end when Crassus was killed by the Parthians at Carrhae. The second of these regimes consisted of Octavian, Antony, and Lepidus.

ANSWER: Triumvirate [or Triumviratus; or First Triumvirate; or Second Triumvirate]

10. An artist from this country created a being with a fork for a head and spikes jutting out from its hair and nipples in his painting *Zambezia*, *Zambezia*. For 10 points each:

[10] Name this country whose avant-garde rallied behind an anti-imperialist movement known simply as The Minority. Its avant-garde artists included the painter of *Hibiscus*, Amelia Pelaez, and the part-Chinese surrealist Wifredo Lam.

ANSWER: Cuba

[10] The Minority had good reason to be mad, since the most famous artist to work in Cuba was, and is, this frequent painter of cowboys and Native Americans. He's best known for his sculpture *The Bronco Buster*.

ANSWER: Frederic Remington [or Frederic Sackrider Remington]

[10] Cuban artist Jose Rodriguez Fuster created many paintings pejoratively classified as this kind of simple art, examples of which include *Tiger in a Tropical Storm (Surprised!)* and other paintings by Henri Rousseau.

ANSWER: naive art [or primitive art]

11. This polity fought against a colonial power in battles at Mbumbi and Mbwila. For 10 points each:

[10] Identify this kingdom that was founded by a "nami" named Lukeni lua Nami. It had its capital at Mbanza.

ANSWER: Kingdom of Kongo

[10] The Kingdom of Kongo fought several wars against this colonial power. Missionaries from this empire converted kings of the Kongo, who then took on names like Afonso and Joao.

ANSWER: Portugal [or obvious equivalents]

[10] This man's explorations of the Upper Congo river, and treaties with natives on behalf of France, led to disputes between the Portuguese and French. He lends his name to the current capital of the Republic of Congo.

ANSWER: Pierre Savorgnan de Brazza

12. This deity is frequently portrayed as being a servant of Indra. For 10 points each:

[10] Name this god who rides a parrot and carries a sugar cane bow with floral arrows. He is frequently known as the "incorporeal" god.

ANSWER: Kamadeva [or Ananga; or Mara; or Manmathudu; or Atanu; or Ragavrinta; or Kandarpa; or Madan; or Manmadha; or Manasija; or Madana; or Ratikanta; or Pushpavan; or Pushpadhanva; or Kusumashara]

[10] This demon could only be defeated by a son of Shiva, so Kama was sent to wake Shiva up from his meditation. Kama then became incorporeal when he was incinerated by Shiva's eye.

ANSWER: Taraka [or Tarakasura]

[10] This animal form belongs to Nandi, the mount and gatekeeper that Kama bypassed in the form of a breeze to get to Shiva. Hindus consider these animals sacred and do not eat them.

ANSWER: bulls [or cows; or Bos taurus; or obvious equivalents, such as heifers]

13. Terms for these things in natural language evolve in a universal order according to linguists Brent Berlin and Paul Kay. For 10 points each:
[10] Name these stimuli whose perception is governed by the opponent-process theory, which outmoded the Young-Helmholtz theory. Groups of cells called “blobs” process them in the visual cortex.
ANSWER: **colors**
[10] In this test, a color word such as “red” is displayed in a different color such as blue; subjects must say the color they see and not the word. It was used during the Cold War with Russian words to ferret out spies.
ANSWER: **Stroop** test [or **Stroop** effect]
[10] This indigenous Brazilian language seems to lack color words, using terms such as “blood” rather than “red.” Dan Everett controversially claims that it lacks self-embedding, a key type of linguistic recursion.
ANSWER: **Pirahã** language [or **xapaitiso** (*ah-pah-tshi-so*)]
14. In his essays, William Gass has repeatedly praised this novel’s sentence “A cow broke in (tomorrow morning) to my Uncle Toby’s fortifications” as one of his favorite in all of English literature. For 10 points each:
[10] Name this digression-filled novel by Laurence Sterne, in which the title character narrates the circumstances surrounding his birth.
ANSWER: *The Life and Opinions of **Tristram Shandy**, Gentleman*
[10] To his father’s regret, Tristram Shandy’s nose is crushed at birth when Dr. Slope uses this newly invented device during the operation.
ANSWER: **forceps**
[10] In one of this author’s novels, it is jokingly suggested that Dr. Slope might be an ancestor of Obadiah Slope. In that novel by him, Mrs. Proudie makes sure Septimus Harding is not re-appointed as warden of Hiram’s Hospital.
ANSWER: Anthony **Trollope**
15. Answer some noted crap from mechanical & structural engineering, for 10 points each.
[10] Castigliano’s two theorems can be used to derive the deflection equations for many systems under load, but only if the system has this property. A limit named for this term is usually equivalent to the yield strength.
ANSWER: linear **elasticity** [or word forms]
[10] This popular finite-element method is based on the principle of minimum potential energy and is objectively better than the least-squares method. It’s widely applied to elasticity problems where it’s equivalent to the Galerkin method.
ANSWER: **Rayleigh-Ritz**-Galerkin method
[10] Below the yield point, a stress-strain curve is linear and has a slope defined by this quantity, which is the stress divided by the strain. It describes a material’s resistance to deformation or “stiffness”.
ANSWER: **Young’s** modulus [or **E**; or **tensile** modulus; prompt on “(modulus of) elasticity”]
16. The hydroxyl megamaser and this type of megamaser are the most common and best-characterized, and this type of astrophysical maser has an emission line at 22 gigahertz. For 10 points each:
[10] Name these astrophysical masers that vary significantly with time but are of great importance because they are found at the outer edge of the Milky Way and distance calculation using VLBI parallax measurements is extremely accurate for them.
ANSWER: **water** masers [or **H₂O** masers; or “megamasers” in place of “masers”]
[10] As expected from a maser, the 22 gigahertz emission line of water lies in this part of the electromagnetic spectrum. Much radio astronomy actually takes place in this slightly shorter wavelength part of the EM spectrum.
ANSWER: **microwave**
[10] An early success of radio astronomy was the accidental discovery of this thing by Arno Penzias and Robert Wilson.
ANSWER: **CMBR** [or **cosmic microwave background** radiation; or **relic** radiation]

17. Propaganda against this man and his successors often mentions that he countersigned the order resulting in the Glencoe Massacre. For 10 points each:
[10] Name this king who won the Battle of the Boyne.
ANSWER: **William III** of Orange [or **William III** of England and Ireland; or **William II** of Scotland; prompt on “William (of Orange)”]
[10] This name is given to the relatively peaceful overthrow of the Stuart James II and his replacement by William III, who was invited to rule England along with his wife Mary.
ANSWER: **Glorious Revolution**
[10] This name is given to the group of English nobles who sent the formal invitation to William to come to Britain, promising him aid in rising up against the Catholic Stuarts if he landed with an army.
ANSWER: **Immortal Seven**
18. Ernest Bloch used this instrument to represent the voice of King Solomon in his rhapsody *Schelomo*. For 10 points each:
[10] Name this instrument that represents the title character in Richard Strauss’s *Don Quixote*. It was the primary instrument of composers Victor Herbert and Luigi Boccherini.
ANSWER: violon**cello**
[10] The most popular cello concerto is probably the one by this Czech composer of the *Slavonic Dances* and the *New World Symphony*.
ANSWER: Antonin **Dvorak** [or Antonin Leopold **Dvorak**]
[10] This contemporary French composer wrote a cello concerto for Mstislav Rostropovich titled *Tout un monde lointain* or *A Whole Distant World*. His orchestral works include *Timbres, espace, mouvement* or *Time, Space, Movement*.
ANSWER: Henri **Dutilleux**
19. This concept was introduced in the paper “Mental Events” and refined in its author later paper “Thinking Causes”. For 10 points each:
[10] Name this approach to the mind-problem, which suggests that every mental event is also a physical event, but that there are no laws which define the relation between the physical and mental aspects of an event.
ANSWER: **anomalous monism**
[10] Donald Davidson’s anomalous monism is an attempt to solve the mind-body problem without resorting to the namesake dualism of this French philosopher who declared “I think, therefore I am”.
ANSWER: René **Descartes**
[10] This other French philosopher advocated a modified form of Cartesian dualism in his *Dialogues on Metaphysics*. He is known for his position that God is the only efficient cause, a position called “occasionalism”.
ANSWER: Nicholas **Malebranche**
20. One novel set in this region tells of the troubles that beset a family when an investment in a cargo of lupins is destroyed by a storm. For 10 points each:
[10] Name this region. In another novel set here, the last prince of a noble family weds his nephew to Angelica, the daughter of a rich bourgeois mayor, of the new regime.
ANSWER: **Sicily** [or **Regione Siciliana**; anti-prompt on “Catania”]
[10] This Sicilian author liked to challenge the nature of truth in such plays as *Each in his Own Way* and *Six Characters in Search of an Author*.
ANSWER: Luigi **Pirandello**
[10] In this novel by Pirandello, the title character must decide whether or not to start a new life when his wife and mother-in-law mistake another man’s corpse for his own and therefore believe him dead.
ANSWER: *The **Late Mattia Pascal***