

PARFAIT III Round 2

Truman State

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1 Truman State Tossups, Round 2

1. In the first of his two successful runs for governor of New York, he defeated prominent publisher William Randolph Hearst. Later, as United States Secretary of State, he convened the Washington Naval Conference concerning naval armaments among the Great Powers. He served twice on the Supreme Court, first appointed by William Taft as an associate justice and later, after resigning fourteen years earlier, appointed by Herbert Hoover as Chief Justice. For ten points, name this politician and jurist whose loss of California's electoral votes prevented him from defeating incumbent Democrat Woodrow Wilson and winning the presidency in 1916.

Answer: Charles Evans Hughes

2. Christine Havelock argues that they adopted pointed shoes suddenly, using as evidence nude kouroi from the Monteleone Chariot, the Tomba dei Tori, and the Cerveteri plaque. The last of which was first studied by Massimo Pallottino. If you accept the autochthonous hypothesis, they evolved from the Villanovan culture and did not, as claimed by Herodotus, come from Lydia around 800 BCE before establishing a culture with an alphabet and Greek-derived myth between the Apennine Mountains and the Tyrrhenian Sea. For ten points, name this civilization that would eventually come to conquer much of Italy until the Romans took Veii in 396 BCE.

Answer: Etruscans or Rasenna

3. Hermann Schneider uses it to argue that the its father is a later form of a Totendämon, while Franz Rolf Schroeder argues the same of its owner. "The Lay of Sigdrifa" says that its teeth are inscribed with runes, and its father was used by Blast in order to collect on an offer of the sun, moon, and the hand of Freya. However, Loki distracted the father in the form of a white mare in order to keep a wall from being constructed in time by Svadilfari. Months later, Loki brought back to Asgard, for ten points, what eight-legged steed he had birthed which Odin would use for travel and battle?

Answer: Sleipnir

4. A pool of water contained by marble walls spanned by a footbridge was proposed by Philip Johnson for this building's plaza, but rejected by the head architect. Johnson however was responsible the glass canopies covering the street entrances. Instead the pink granite plaza now houses Calder's *Ordinary* and separates the building from the Lever House. Its most notable feature is the bronze curtain wall, which emulates the structural steel underneath. Completed in 1958 and located on Park Avenue between fifty-second and fifty-third street, also part of the original design was the Four Seasons Restaurant. For ten points, name this international style New York skyscraper by Mies Van der Rohe ["ROW"-AH] named after now-defunct Canadian distillers.

Answer: Seagram Building

5. Carel van Mander argued that the woman in the top right is holding a fig, but it's more likely that it's the same fruit painted by Giovanni Battista Ferrari. To the left of that woman is Saint Cecilia playing an organ, and above that woman is one of her sons killing the other. On the opposite side are Joos Vijd [YOOS VEET] and Elizabeth Borluut

[BORE - LOOT] , who commissioned the work. When its doors are opened, the most well-known panel portrays a group of people praying to a lamb on an elevated pedestal. For ten points, name this altarpiece whose most well-known panel is known as “Adoration of the Mystic Lamb” and which was painted by Jan van Eyck.

Answer: Ghent Altarpiece (altaarstuk)

6. Gordon and Lokoff have developed his theories inside of a generative semantics framework as a from of entailment, which was attacked by Hancher, who also suggested that omniscient narration violates his principles. Griffin argued that impaired readers do not recognize his conversational implicatures in the printed form, and Pratt extends his two person model to a four person one. He argued that speech acts should follow the maxims of quality, quantity, relevance, and manner in his articles *Meaning* and *Utterer’s Meaning and Intention*. For ten points, name this Oxford-educated Berkeley philosopher who helped defined the field of pragmatics.

Answer: Herbert Paul Grice

7. Early in the story, the character of Leonard is introduced when Helen accidentally steals his umbrella after a performance of Beethoven’s Fifth Symphony. Later, Helen’s sister Margaret refuses to give Leonard a job after finding out that his wife had an affair with her soon-to-be husband, Henry Wilcox. This leads Helen and Leonard to sleep together, which leaves her pregnant. At the novel’s climax, Leonard Bast has a heart attack after being attacked by Henry Wilcox’s vengeful son, and Helen Schlegel moves in with Margaret and Henry at the titular residence. For ten points, name this 1910 novel about class interactions in early twentieth century Britain, the first great success of E.M. Forster.

Answer: Howards End

8. Goldwasser and Killian non-constructively showed that they could be found because of the implications of Cramer’s conjecture. Adleman, Pomerance, and Rumely also non-constructively showed they could be found deterministically, while Adleman and Huang used monic functions of degree six to present a randomized way to find them. The Solovay-Strassen algorithm can test if a number has this property, and Korselt’s theorem describes the properties of numbers that can fool Fermat’s test of this property, Carmichael numbers. For ten points, name these numbers whose proper factors are one and itself.

Answer: Prime numbers

9. A newspaper published copies one of his works whose last titular character is Arafa for a pound each after this author was stabbed in the neck on October 14, 1994. Some of his works, such as *The Thief Dogs* and *Autumn Quail*, contained political commentary, which complemented the religious strife that *Children of the Alley* incited after he was awarded the Nobel Prize for Literature in 1988. For ten points, name this Egyptian author best-known for such works as *The Cairo Trilogy* and *Chitchat on the Nile*.

Answer: Naguib Mahfouz

10. When it was first discovered, it had to be reconciled with the results obtained from Duane’s Box, which dealt with tertiary interactions. Using data collected by Youxun Wu, the possibility of a new “J” radiation was rejected and it was verified that, proportional to the sin squared of the angle between incidence and scattering, the wavelength of the final

photon changes in an elastic collision with an electron. For ten points, name this effect, proposed after experiments found secondary x-rays were less penetrating than primary x-rays that won its University of Chicago discoverer the 1929 Nobel.

Answer: Compton Effect

11. Large amounts of silt in it have created the Playa Honda, Ortiz, Chico shoals, while islands in it include Hornos, San Gabriel, López, Lobos, Farallón, and Martín García. The second largest of the rivers that empty into it is joined by the Pelotas and Peperi Guacu rivers. The largest river that empties into it is the Parana and receives the Paraguay river. For ten points, name this “river” that is more like a minor sea that serves as an estuary separating Uruguay and Argentina.

Answer: Rio de la Plata

12. The most famous song from this work appears four times; the first two times bookend the craps game that leads to Robbins’ death, the third time is during a storm as Clara soothes her baby, and the fourth time is as one of the title characters replaces Clara as the baby’s mother, asserting “your daddy’s rich and your mamma’s good looking.” That title character had been forced to seek protection from the other title character, a cripple, after Crown turned her out. Using an almost entirely black cast at its 1935 New York premiere, by DuBose Heyward, the librettist, set it in the fictitious community of Catfish Row in Charleston, South Carolina. For ten points, name this American opera written by George and Ira Gershwin.

Answer: Porgy and Bess

13. The plot, main character’s name, and speeches of this work were stolen by Aleksei Nikolaevich Tolstoy in his *Bunt masin*. The key event in this work is the 1932 invention of protoplasm, which allows the creation of Radius by Doctor Gall, but Dormin later wonders who it was that taught the title group the words that appear in their manifesto whose consequences lead to Alquist being the last human alive. This play follows an idealistic young woman named Helena Glory as she tries to battle the destruction of the human race by overzealous “workers.” Humanity is saved, however, when two robots fall in love in, for ten points, what Karel Capek play?

Answer: R.U.R. or Rossum’s Universal Robots

14. The Wagner-Jauregg reaction is a rare example of a benzenoid molecule undergoing this reaction. Dendralene and N-methyl-maleimide can also undergo this reaction, which earned the 1950 chemistry Nobel. One reagent must be able to rotate into the s-cis conformation, or else the pi-electrons cannot overlap. The endo position is usually favored, such as when reacting maleic anhydride with cyclopentadiene. For ten points, name this reaction that can produce unsaturated six-member rings.

Answer: Diels-Alder Reaction

15. The first introduced seven interrogatories, which were only addressed in the second upon the advice of Ebenezer Peck and Norman Judd in a letter written by Joseph Medill. More famous, however, is an interrogatory introduced in the second, which was answered with “the people have a lawful means to include it or exclude it as they choose.” That answer created what was called the Freeport “doctrine” or “heresy” on the question of popular

sovereignty. For ten points, name this series of 1858 debates in Illinois that brought fame to the man who would become president in 1860.

Answer: Lincoln-Douglas Debates (accept reasonable alternatives)

16. Gene families that respond to this family of molecules include SAUR, GH3, and IAA. 2,4-dichlorophenoxyacetic acid – a component of Agent Orange – is also a type of this chemical. In high doses, it leads to excessive ethylene production, which in turn leads to defoliation. In normal concentrations, it works by being induced in a gradient pattern. A vertical gradient can inhibit lateral buds, while a lateral gradient may be responsible for a plant curving towards the sun, and other tropisms. For ten points name this plant hormone best known for apical dominance.

Answer: Auxins

17. He turned down a role in *Cleaver*, and tried to ditch the producers Christopher Moltisanti and Carmine Lupertazzi in the *Luxury Lounge*, which seems uncharacteristic given he said yes to *Bloodrayne*, Spooky House, and *Thunderbirds*. He plays a real mob boss called “The Rabbi” in *Lucky Number Slevin*, somewhat similar to the role of Don Levin which got him an oscar nomination for *Sexy Beast*, which preceded his nomination for portraying Behrani, an exiled member Iran’s Air Force in *House of Sand and Fog*. For ten points, name this Indian-British actor won an Oscar for the title character in the 1982 biopic *Gandhi*.

Answer: Ben Kingsley prompt on “Khrishna Bhanji”

18. It includes such minor characters as Miss Grey and Lord Morton and was first published under the pseudonym “A Lady” in 1811. After being caught in the rain and consequently spraining her ankle, the second sister of the novel’s principal family is saved by a dashing Mr. Willoughby. Their relationship progresses until eventually the sister gives Mr. Willoughby a lock of her hair. Originally titled “Elinor and Marianne” after the two main characters, for ten points, name this novel by Jane Austen.

Answer: Sense and Sensibility

19. He intervened in the selection of the abbot of the temple revered by the Hosso sect, and a year later resigned from the positions of Minister of the Right and Right general of the imperial guard. He killed his brother-in-law Azai Nagamasa and had frosty relationships with his wife Nohime and sister Oichi. After his sudden death in 1582, his lieutenants Hashiba Hidayoshi and Matsudaira Motoyasu continued his quest to unite the country. For ten points, name this major daimyo of Japan’s warring states period whose conquest helped bring about the Tokugawa shogunate.

Answer: Oda Nobunaga (prompt on “Kichihoshi” or “Saburo”)

20. It is a scalar in the case of isotropic media, where the electric displacement field and the electric field are parallel vectors, while it is a rank-2 tensor in general anisotropic media, resulting in birefringence. Together with the magnetic permeability of a medium, it determines the phase velocity of electromagnetic radiation through that medium. Similarly to the dielectric, increasing it in a capacitor allows the same charge to be stored with a smaller electric field, leading to increased capacitance. For ten points, name this physical quantity that describes how an electric field affects and is affected by a dielectric medium,

and that in a vacuum is equal to 8.854 times ten to the negative 12 Farads per meter.

Answer: Permittivity (Do not accept Permittivity of Free Space, as it is too specific)

21. This branch of philosophy is prominent in Plato's dialogue Theaetetus (thee - ah - tee - tus), although its name was not introduced until the 19th century, when Scottish philosopher James Frederick Ferrier first coined the term. Noting the differences between a priori and posteriori knowledge, this branch addresses one of its most important questions by noting the difference between "knowing that" and "knowing how". For ten points, name this branch of philosophy that deals with the nature of knowledge and belief.

Answer: Epistemology

2 Truman State Bonuses, Round 2

1. Established in the sixth century, it saw the completion of the Grand Canal. For ten points each. . .

- 10 Name this Chinese dynasty with capital at Chang'an.

Answer: Sui Chao

- 10 Name this Sui first who was the father in law of the last Zhou emperor and seized power after Wu's death.

Answer: Wendi or Puliuru Jian or Yang Jian

- 10 The Sui dynasty, after its brief run, was followed by this dyanasty in 618.

Answer: Tang Chao

2. American Civil War battles for ten points each.

- 10 This battle took place from the 8th to the 21st of May 1864, only a few days after the first engagement between Grant and Lee at the Battle of the Wilderness and included the Laurel Hill skirmish.

Answer: Battle of Spotsylvania Court House

- 10 This August 1862 battle began as an attempt to draw out General John Pope's troops and became a decisive loss for Union troops when General Longstreet counter-attacked with nearly 30,000 men.

Answer: Battle of Second Bull Run or Second Battle of Manassas

- 10 In this battle between December 31st 1862 and January 2nd, Major General William Rosecrans engaged Braxton Bragg in Middle Tennessee. Bragg retreated after losing over 10,000 men.

Answer: Battle of Stone's Creek or Second Battle of Murfreesboro

3. Answer the following questions about the Italian unification, for ten points each.

- 10 He advocated war against Austria in his newspaper, Il Risorgimento, and went on to become the prime minister of Piedmont-Sardinia as well as the first prime minister of a united Italy.

Answer: Cavour or Count Camillo Benso

- 10 Founder of the Young Italy movement, this supporter of Garibaldi refused to support his choice of Victor Emmanuel as King of the united Italy and continued his denial of the monarchy until his death in 1872.

Answer: Giuseppe Mazzini

- 10 This Minister of War to Tuscany captured Rome in September 1870, and had earlier won the battle of San Martino against the Austrians.

Answer: Raffaele Cadorna

4. Answer the following about enzyme kinetics, for ten points each.

10 This equation, named for a German and a Canadian, gives the rate of product in terms of the maximum rate V_{max} and its constant K_m .

Answer: Michaelis-Menten Equation

10 Used to determine enzyme inhibition, this graphical method of analyzing the Michaelis-Menten equation has its y-intercept equivalent to the inverse of V_{max} , its x-intercept equivalent to $-\frac{1}{K_m}$.

Answer: Lineweaver-Burk plot

10 In this technique of linearizing the Michaelis-Menten equation, reaction velocity is plotted as a function of the velocity vs. substrate concentration ratio.

Answer: Eadie-Hofsteed plot

5. Answer the following about the exciting field of optimization for ten points each.

10 For a continuous differentiable function, a necessary condition for a point x to be an extreme point is for the first derivative of $f(x)$ to be what value?

Answer: zero

10 If you have constraints on the quantity being maximized, such as a vector that sums to one, you can add a parameter λ times the constraint and then maximize that quantity. The altered equation is then named after what French mathematician?

Answer: Joseph Louis Lagrange

10 If your objective function is linear and your constraints are linear, you can use this not too complex algorithm with possibly exponential runtime developed by Danzig to find the best solution.

Answer: Simplex algorithm

6. He holds a tigerskin in one hand and a goblet in the other, and a faun playfully eats grapes behind him. For ten points each. . .

10 Name this 1497 sculpture commissioned for Cardinal Riario.

Answer: Bacchus

10 Bacchus was created by this Renaissance artist of *Holy Family*.

Answer: Michelangelo di Lodovico Buonarroti Simoni

10 This Michelangelo mural stands behind the altar of the Sistine Chapel and depicts Christ's second coming; Daniele da Volterra had the honor of covering the naughty bits afterward.

Answer: Last Judgement or Giudizio universale

7. Name these female politicians in the spotlight in 2007.

10 Her father was killed by Muhammad Zia-ul-Haq, but in 2007 she returned from an eight year exile in Dubai after Musharraf agreed not to pursue corruption charges.

Answer: Benazir Bhutto

10 Born on the Senegalese military base where her father was stationed, this member of the Socialist Party lost the May 2007 French presidential election to Nicolas Sarkozy.

Answer: Ségolène Royal

10 This lawyer, philanthropist and longtime politician was inaugurated as the first female President of India on July 25.

Answer: Pratibha Patil

8. Answer these questions relating to the early years of anthropology, for ten points each.

10 This 1890 work, with chapter titles including “The King of the Wood” and “Sympathetic Magic,” attempted to find commonalities between seemingly disparate religions and folklore.

Answer: The Golden Bough: A Study in Magic and Religion

10 This Scottish anthropologist wrote the *The Golden Bough*.

Answer: Sir James George Frazer

10 This man, also an early British anthropologist, reintroduced the word *animism*, and influenced other early British anthropologists such as Frazer in his work *Primitive Culture*.

Answer: Edward Burnett Tylor

9. Micronations often receive attention that is disproportionate to their size and influence. Let's honor that tradition for ten points each.

10 It's 10,000 people live in a country of about eight square miles, and its capital Yaren lost air service when the court of Melbourne seized the flag carrier's only plane.

Answer: Nauru

10 The Bates family contends visits by German and British diplomats are de facto recognition of this repurposed refueling station's sovereignty.

Answer: Sealand

10 According to local tradition, this micronation was founded by a stonemason in 301 AD; it also aligns its foreign policy with that of Italy, the nation that fully encompasses it.

Answer: San Marino

10. He is raised by Mime [”ME”-”MA”] and reforges Nothun. For ten points each. . .

10 Name this title hero who is able to understand the Forest Bird's song after tasting Fafner's blood.

Answer: Siegfried

10 *Siegfried* is an opera written by this German.

Answer: Richard Wagner

- 10 The Wanderer, aka Wotan, is bested by Siegfried after communing with this goddess in whom he confides that he is not afraid of the Götterdämmerung.
Answer: Erda or Jord
11. Answer these questions relating to the Mycenaean Saga of Greek mythology, for ten points each.
- 10 This man, one of the few named people in Tartarus, was sentenced to stand in a pool of water while grapes dangled over his head, both out of reach, while he grappled everlastingly with a terrible hunger and thirst.
Answer: Tantalus or Tantalos
- 10 This son of Tantalus got his father condemned to Tartarus when he let himself be killed, boiled, cut into pieces, and served to the gods as a delicacy.
Answer: Pelops
- 10 Pelops, with the help of Poseidon, eventually wed this daughter of Oenomaus.
Answer: Hippodameia
12. For ten points each, name these first-millennium church leaders all later named as “Doctors of the Church”
- 10 This fourth-century bishop of Alexandria is best remembered for his opposition to the non-Trinitarian doctrine of Arianism, though most scholars now believe the creed expressing Trinitarian beliefs that bears his name was not written until after his death.
Answer: St. Athanasius of Alexandra
- 10 The only English Doctor of the Church, this seventh and eighth-century monk wrote *Ecclesiastical History of the English People*.
Answer: the Venerable Bede
- 10 One of only two popes to be named a Doctor of the Church as well as the first pope with a monastic past, he reigned in Rome at the turn of the seventh century, making broad reforms and catholicizing the Lombards, leading many to consider him the founder of the powerful medieval papacy.
Answer: Gregory the Great or Pope Gregory I
13. When his fiancée disappears, the title character concludes that she has run off with her former lover, and resolves to go after them until he talks to Mr. Irwine, the village rector. For ten points each. . .
- 10 Name this 1859 novel in which that fiancée kills her newborn child by abandoning it in the woods.
Answer: Adam Bede
- 10 This British novelist wrote *Adam Bede*.
Answer: George Eliot or Mary Anne Evans

- 10 This woman, a pious Methodist preacher, marries Adam after his fiance is sent away from England for the murder of her child.
Answer: Dinah Morris (accept either)
14. This dynasty started as a revolt against the Caliph Ali and moved the capital from Mecca. For ten points each. . .
- 10 Name this dynasty whose leaders included Muawiyah, Yazid I, and Muzan II and that was eventually overthrown in 750.
Answer: Umayyad Dynasty
- 10 The Umayyad Dynasty moved the capital to this city.
Answer: Damascus or Dimashq or Ash-Sham
- 10 The great mosque of Damascus was built by this Umayyad ruler.
Answer: Al-Walid ibn Abd al-Malik
15. Answer these questions about elementary particles, for ten points each.
- 10 This family is the lightest of the fermions and includes four particles and four antiparticles, including neutrinos, electrons, and muons.
Answer: Leptons
- 10 Leptons, by definition have what spin?
Answer: $\frac{1}{2}$
- 10 Predicted by Bruno Pontecorvo, this phenomenon, which predicts that the probability of measuring a particular flavor for a neutrino varies periodically as it propagates, would imply that neutrinos have mass.
Answer: Neutrino Oscillations
16. Answer the following about a mathematician, for ten points each.
- 10 His *Analyse algébrique*, based on his lectures at the École Polytechnique, forms the first part of his *Cours d'analyse*. Name this French mathematician, the first to prove the Fermat polygonal number theorem and the initiator of the study of permutation groups.
Answer: Augustin Cauchy
- 10 Cauchy presented the first rigorous proof of this formula relating the edges, vertices, and faces of a polyhedron.
Answer: Euler's Formula
- 10 This inequality, named after Cauchy and a German mathematician, says that the absolute value of the inner product between x and y is less or equal to the product of their norms.
Answer: Cauchy-Schwarz-Bunyakovski Inequality
17. Name these Salman Rushdie works for ten points each.

- 10 Rushdie's second novel that concerns the fate of Shiva and Saleem, two of the 1001 babies that were born on the eve of Indian independence.
Answer: Midnight's Children
- 10 The title character is a chauffeur to Max Ophuls, the the former ambassador to India, whom he eventually kills.
Answer: Shalimar the Clown
- 10 This non-fiction work details Rushdie's travels in Nicaragua, which was run at the time by the Sandinistas.
Answer: The Jaguar Smile: A Nicaraguan Journey
18. Answer the following about reactions involving alkenes, for ten points each.
- 10 An alkene can be made into an alcohol via this reaction, invented by Brown and involving a key element. Technically, it requires a second oxidation step.
Answer: Hydroboration
- 10 A peroxyacid such as MCPBA can react with an alkene to yield this extremely unstable cyclic ether.
Answer: Epoxide
- 10 This reagent is formed by adding methylene iodide to a "zinc-copper couple" to form a reagent resembling iodomethyl zinc iodide. Named for two DuPont chemists, it has better yields in converting alkenes to cyclopropanes than diazomethane.
Answer: Simmons-Smith Reaction or Reagent
19. For ten points each, name these Super Bowl MVPs.
- 10 This Pittsburgh Steeler was the MVP at Super Bowl X. After retiring from football, he briefly hosted the game show *To Tell the Truth* and was the unsuccessful Republican nominee for governor of Pennsylvania in 2006.
Answer: Lynn Swann
- 10 After winning the Heisman at Stanford, this quarterback played for the Patriots and 49ers before leading the Oakland Raiders in a comeback 1980 season to triumph over the Philadelphia Eagles in Super Bowl XV.
Answer: Jim Plunkett
- 10 He became the first cornerback to win the MVP award after the Dallas Cowboys won their third championship in four seasons in 1996's Super Bowl XXX.
Answer: Larry Brown
20. Good things come in threes. Answer the following questions about books that won the Pulitzer prize in years that end in three for ten points each.
- 10 This book is told through the letters and diary entries of Celie, who marries a man referred to as Mr. BLANK, who takes a lover named Shug in this Alice Walker novel.
Answer: The Color Purple

10 This book tells the story of Calliope Stephanides who is both a man, a woman, and a San Francisco freak show in this Jeffrey Eugenides work.

Answer: Middlesex

10 Judge McKelva goes from Mount Salus, Mississippi to New Orleans to die, and afterward is buried by his titular progeny and his new wife in this Eudora Welty work.

Answer: The Optimist's Daughter

21. After losing his love Mercedes because of the treachery of his "friends," he gets sophistication and a treasure from a fellow prisoner. For ten points each. . .

10 Name this title character of a Dumas work.

Answer: The Count of Monte Cristo or Edmond Dantes or Le Comte de Monte-Cristo

10 Name that fellow prisoner, an Italian priest who is digging an escape tunnel and whose body bag provides Edmund's escape.

Answer: Abbe Ferria

10 This shipowner works to free Dantès from prison and save Dantès's father from dying of starvation. He is rewarded when Dantès becomes the Count of Monte Cristo and saves him from financial ruin.

Answer: Monsieur Morrel

22. Name these presidential hopefuls of the 20th century for ten points each.

10 This former Governor of New York is most notable today for his unsuccessful presidential runs as a Republican in 1944 and 1948.

Answer: Thomas E. Dewey

10 This candidate, like Thomas Dewey, ran for president twice-in 1952 and 1956. Like Dewey, this candidate was also a governor before he ran, this time in Illinois.

Answer: Adlai E. Stevenson

10 This candidate was a career politician who served in many capacities, including Mayor of Minneapolis and Senator from Minnesota, and later ran for the presidency in 1968 against Richard Nixon.

Answer: Hubert H. Humphrey