

# PARFAIT II Round 5

Princeton

Philip Levitz and Siddharth Bhaskar

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# 1 Princeton Tossups, Round 5

1. Soybean cultivation was introduced and the power of kings was diluted with *hui<sub>4</sub> meng<sub>4</sub>*, Fan Li opened a pharmacy and wrote the book *Golden Rules of Business Success*, and Sun<sub>1</sub> Zi<sub>3</sub> wrote *The Art of War*. Duke Wen<sub>2</sub> brought the state of Jin<sub>4</sub> to prominence and helped restore Xiang<sub>1</sub> to the throne of the increasingly irrelevant Zhou<sub>1</sub> dyansty. For ten points, what is this period from 772-453 BCE, preceding the Warring States, which takes its name from a “seasonal” chronicle written by Confucius?

***Answer:*** Spring and Autumn Period or Chun<sub>1</sub>qiu<sub>1</sub> Shi<sub>2</sub>dai<sub>4</sub>

2. Garcia was the chief exploiter of the UCF method for finding them, and found several exotic ones, defined as those with a CF that is relatively prime to both square-free members. An aliquot sequence of period 2, both L.E. Dickson and and Seelhoff found two of them in 1911 and 1884, respectively, and Poulet was the first to use Lucas’s primality testing method to find them. Although most use Thabit ibn Qurra’s formula, which was rediscovered by Euler, a schoolboy named Nicolo Paganini surprised the world in 1866 by discovering 1184 and 1210 by trial and error. Defined as a pair of numbers such that the sum of the proper divisors of one equals the the other and vice-versa, for ten points , name this specific case of social numbers and a more general case of a perfect number, a pair of numbers that gets along well.

***Answer:*** amicable numbers

3. His paper *On continued Gravitational Contraction* written with Snyder was one of the first theoretical treatments of black holes, and is a model that is just an ever-contracting dust ball. For neutron stars, his name, along with Tolman and Volkoff, is also attached to the analog of the Chandrasekhar limit that predicts that neutron stars collapse at around three to five solar masses. The approximation with his name and Born’s says the motion of the nucleus and electrons of an atom may be considered separately. He is better known, however, for the work he did in World War II in which he ratted out his friend Haakon Chevalier while overseeing the work that eventually led to sucessful test at the Alamagordo Trinity site. For ten points , name this polymath who headed up the Manhattan project as “the father of the atomic bomb.”

***Answer:*** Julius Robert Oppenheimer

4. According to one version, Venus sends her son Cupid to cause her to fall in love with another of Venus’ sons during a feast, causing an infatuation in her that was to later earn her a spot in the second circle of Dante’s Inferno. However, she might have lucked out, considering that she also qualified for the seventh circle, having committed suicide on the pyre when her love left her. Later, she meets him when he visits the underworld, but ignores him, instead fleeing to her former husband Sychaeus. She originally came from Tyre, but fled to North Africa with her followers when her brother Pygmalion murdered Sychaeus, and there established a colony which means ‘New City’ in Phoenician. For ten points , identify this queen of Carthage and onetime lover of Aeneas.

***Answer:*** Dido or Elissa

5. One of the horses he shod, Overburden, set the speed record at Northlands Park in Edmonton, Alberta, and eventually he got landed immigrant status after being confronted by a RCMP, as recounted in a debate on WJAR with the current mayor of Cranston. As mayor of Warwick he announced that he'd would run for his current position but was instead appointed by Governor Almond to fill the seat of his father, John, and went on to become Chairman of the Subcommittee on Near Eastern and South Asian Affairs. Narrowly beating Republican primary challenger Stephen Laffey in an overwhelmingly left-leaning state, his uncertain nomination forced the Republicans to stand behind a gay-loving, pro-abortion, Sierra Club-endorsed candidate who voted for the withdrawal of troops from Iraq. For ten points, name this Brown-educated Republican senator from Rhode Island.

**Answer:** Lincoln Chafee

6. There are about 450,000 members of this group in Africa, more than on any other continent. North America is not far behind with General Conference and Hutterian offshoots, but it was in Europe that the teachings of Melchior Hofmann inspired radicals in Münster that brought about the conversion of the group's founder in 1536, breaking off from the Anabaptist movement that grew up out of disagreements within Zwingli's reformed church. In the late 17th century, Jacob Ammann felt that group did not shun the surrounding society enough and in turn broke off the Amish from this larger Anabaptist sect. For ten points, what is this Christian sect, one of the historic "peace churches," named for founder Menno Simons.

**Answer:** Mennonites, prompt on "Anabaptist" or "Amish"

7. The protagonist of the third story is lured from going home by an entreaty from his aunt to eat with her and by a friend who says that "we gots a jug in de bushes." Instead, he goes home with his dog and sees the ghost of his dead wife, Mannie. Rider's connection to the other characters is tenuous, but the author said that the protagonist of "Pantaloon in Black" rented his cabin from the McCaslins. Isaac McCaslin hunts Old Ben in the story "The Bear" and was born in the first story, "Was." The title story concerns Gavin Stevens bringing the body of Samuel Beauchamp back to Yoknapatawpha County after he was, as his grandmother put it, "sold to pharoh." For ten points, name this collection of Faulkner short stories that takes its name from an African American spiritual.

**Answer:** Go Down Moses, prompt on "Pantaloon in Black"

8. The place where the Zeta meets the Moraca was known as Birziminium during Roman times, and during the early middle ages, it was known as Ribnica. This city's first mention with its current name was in 1326 when the town was just beginning its growth into a trading center between the state of Nemanjici and the Adriatic coast. The city didn't become a capital until 1946, when it was known as Titograd for the leader of the Federation it was then a part of. For ten points, name this city which, in June, 2006, a national capital once again, the seat of the government of newly-independent Montenegro.

**Answer:** Podgorica (prompt on "Titograd" or on the improbable answers of "Ribnica" or "Birziminium")

9. Because it only expresses open syllables, i.e. ones that end in a vowel, and only have one initial consonant per syllable, “sthathmos” is written as ta-to-mo and “polos” is written as po-lo, but although mentioned by the language’s discover, that man did not follow through with the obvious similarities. A.E. Cowley determined the words that mean boys and girls, but mixed them up. However, it was the polyglot architect Michael Ventris who, by identifying place-names such as Knossos and Tyliisos, was able to decipher the language discovered by Arthur Evans for the first time. With John Chadwick, Ventris showed that the script was used to write a form of Greek borrowed from an earlier Minoan language. For ten points, name the script which, when used to write that Minoan language, is called Linear A.

**Answer:** Linear B

10. He founded the newspaper *The Free Fatherland* at the age of sixteen, and Philip Foner edited his work *Inside the Monster: Writings on the United States and American Imperialism*. After angering Antonio Guzmán Blanco with his *Venezulean Review* in 1881, he made his way to New York, where he continued his ongoing struggle for freedom in his home state. In 1895 he died with Máximo Gómez on the plains of Dos Ríos, Oriente province, after which his country won independence. Today, his poems are routinely memorized by students in Cuba, where he is known as “el apostol de independencia.” For ten points, name this Cuban national hero, author of *Versos libres* and *Versos sencillos*.

**Answer:** José Julián Martí y Pérez

11. Although this play lacks any gods as characters, the title character becomes a pharmakos god when a messenger from Corinth, answering a prayer of the title character’s mother to Apollo, harbours the man who killed a man who was “tall; the first white flowers had blossomed in his hair” at Phoci. This is bad news because Menoeceus’ son brings word that the man who killed Laius is in Thebes, but everything unravels when a another messenger comes with news that Polybus, the title character’s adopted father, is dead and that Merope is not his mother. Then his new wife, Jocasta, kills herself, and he gouges out his eyes. For ten points, name this play by Sophocles about a king who bedded his mother after killing his father.

**Answer:** Oedipus Rex / Tyrannos / the King

12. It was the penultimate work in its premiere concert that included an explication of “Yes, We Have no Bananas” and began with the “Livery Stable Blues.” The orchestration was provided by the composer of the *Grand Canyon Suite*, but Ferde Grofé did not fully write out the parts for the two pianos. It is incorporated into the song “A Pretty Girl is like a Melody” in *Ziegfeld Follies* set before 1918, before this work’s March 1924 debut in the Aeolian Hall by the Whiteman orchestra. It also appears in the opening, borrowed by *The Critic*, of Woody Allen’s *Manhattan* and an Al Hirschfeld-inspired cartoon New York in *Fantasia 2000*, but its best known use comes from United Airlines, which agreed to pay \$300,000 a year to use it. For ten points, name this colorful work for jazz and orchestra by George Gershwin.

**Answer:** Rhapsody in Blue

13. Saporta and Kan estimated in 1997 that halving it would increase share prices by 8%. In 1990, it was announced that it would be abolished with the introduction of Taurus, a

replacement for Talisman, but the idea was forgotten until George Osborne told the Daily Telegraph that he would abolish it if the Tories were elected. Although much diminished since its introduction, it costs just 3 pence to raise 100 pounds for every share sold by a company incorporated in Britain and even less for land purchases and new leasing agreements. Its more ignominious expansion in 1765 led to Otis's *The Rights of the British Colonies Asserted and Proved* and had violators punished in vice admiralty courts. Requiring compliance on legal documents, diplomas, almanacs, broadsides, newspapers and playing cards, for ten points name this then unpopular tax that the Americans wanted to lick.

**Answer:** stamp tax / duty / act

14. With references to Saints Paul, Augustine, and Thomas Aquinas as well as Socrates, this document was written in response to "A Call for Unity," written by Rabbi Milton Grafman, Bishop Joseph Durik, Edward Ramage, and five other clergy, whose names appear at the top of the address. First published in The New Leader's June 24, 1963 issue, the text argues that demonstrations and legal efforts were the only way to combat George Wallace's vitriol, in opposition to the clergy's timid response. Written in a prison where its author was incarcerated, it states that "Injustice anywhere is a threat to justice everywhere." For ten points, name this document in defense of civil disobedience written in Alabama's largest city by Martin Luther King, Jr.

**Answer:** Letter from Birmingham City Jail

15. The chapter "The Festival of Red Leaves" sees a slapstick comedy as the protagonist and his brother-in-law tear off each others clothes. When the protagonist dances "The Waves of the Blue Sea," he causes the entire court to cry. The chapters concerning the title character's son and grandson are named after the village where Kauro and Niou fight for the love of Ukifune. Among the love interests of the title character are Asagao, who rejected him, Fujitsubo, whose son by him was adopted by the emperor, and his favorite wife, Murasaki Ue. For ten points, name this work, often considered the first novel, written in eleventh century Heian Japan by Lady Murasaki Shikibu.

**Answer:** Genji Monogatari or Tale of Genji

16. Balaswamy Dikshitar is said to have introduced it to South India after studying British music, and today it is the standard accompanying instrument in a Carnatic concert. Many variations of it exist around the world, such as the Norwegian hardingfele, which uses four or five sympathetic strings that pass under the bridge to create a drone. In Irish music, common ornamentations played on it include rolls or mordents; when used in Classical music, vibrato is almost universal. Its name comes from the Latin vitula, or "stringed instrument," and probably originated from earlier instruments like the rebec. A standard one is generally constructed with a spruce top and maple ribs and back, and has four strings, each tuned a fifth up from the last. In an orchestra, the concert master is the first chair of, for ten points, the section that plays what instrument?

**Answer:** The Violin

17. Among their stranger honors include being the first band to have performed in the U.S. Capitol and having a founder who was the first non-Native American Honorary Chief of the Choctaw Nation. However, this band is more popularly known for collaborative work

with artists like Mick Jagger and Sinéad O'Connor and for contributing to the music of films like *Treasure Island* and *Gangs of New York*. Many of the original members came from the earlier folk orchestra, Ceoltóiri Cualann, credited with establishing the composition and repertoire of the modern Irish traditional band. For ten points, identify this quadragenarian band from Ireland which takes its name from a John Montague poem and consists of singer and percussionist Kevin Conneff, flautist Matt Molloy, fiddler Seán Keane, and piper and founder Paddy Moloney.

**Answer:** The Chieftains

18. Admiral Scrope delivers his patent of nobility granted because, while pelting Charles II with nuts, Nell Gwynn admired his legs, and Scrope's blueshirts delay a rebellion only slightly. After the rebellion, silver trumpets bellow "truth, truth," to the title character, who after awakening takes his dog and goes to a gypsy camp on a donkey, where she has to say "how good to eat" instead of "how beautiful" upon her seeing of the acropolis from a mountain tarn. Once the British ambassador in Constantinople, he was also the erstwhile love interest of Swift, Pope, Addison, Sasha, an Irish noblewoman, and a Romanian Dutchess – er Duke. For ten points, name this inexplicably long-lived title character of Virginia Woolf who, after a long slumber, changes sex and who shares his/her name with a Florida city.

**Answer:** Orlando

19. Three Irish regiments were led by the Marquis De Blainville, and next to them were Maximilian Emanuel's troops, who refused to send reinforcements from cavalry charges across the Nebel begun by Lord John Cutts and continued by Eugene of Savoy. That allowed the allied commander, running short on supplies, to take on the larger force encamped on the Danube led by Camille, comte de Tallard and the Elector of Bavaria, who was fighting on his own turf. For ten points, name this decisive 1704 victory of the Duke of Marlborough of the War of Spanish Succession, which helped crush Louis XIV's hopes of dominating Europe.

**Answer:** Battle of Blenheim or bataille de Höchstädt

20. N utilization substance proteins prevent it from happening too early, while the "hot pursuit model" explains how a hexameric helicase with a ATP hydrolysis domain detach the product from the protein discovered by Sam Weiss and Jerard Hurwitz. Another termination model occurs when hairpin turns are created by palindromic repeats that prevent further elongation. Pribnow-Schaller boxes or TATA boxes comprise promoter regions that tell RNA polymerase where to begin this process, after which one of the products, mRNA, goes to ribosomes where translation occurs. For ten points, name this process by which DNA is converted into RNA.

**Answer:** transcription

21. In a review of this man's work, the reviewer comments that his masterpiece is a much richer novel than the "original" work to which it is related, since it abounds in subtle allusion to history after the other work, and since, unlike that work, it is so far removed from events of the day. A Frehncman, his willpower is noticeable through his mastering a dead dialect of Spanish and from his ability to perfectly enter the persona of a chivalric knight, which together allowed him to write his masterpiece. The story he appears in is

written from the perspective of a Catholic literatus, himself in turn just another colorful persona created by its author, a master of the short story genre and creator of works like *The Aleph* and *The Garden of Forking Paths*. For ten points, identify this Frenchman who writes, word for word, much of *The Quixote*, the subject of a Jorge Luis Borges short story.

**Answer:** Pierre Menard (accept either name; comes from Pierre Menard, Autor del Quixote)

## 2 Princeton Bonuses, Round 5

1. For ten points each , identify these plays of Euripides from a brief sketch of their plots.
  - 10 Dionysis puts the women of Thebes under a spell, infuriating King Pentheus, who later gets ripped to shreds in the woods by enchanted women.  
**Answer: The Bacchae or The Bacchantes**
  - 10 Abandoned in favor of Princess Glauce, she achieves revenge in the murder of not only Glauce and her father, but also her own two children before fleeing to Athens.  
**Answer: Medea**
  - 10 Admetus promises on his wife's death bed never to remarry or make merriment again, but parties with Herakles and then remarries his wife just back from Hades.  
**Answer: Alcestis**
  
2. For ten points each , answer these questions on the history of the Caribbean islands.
  - 10 Alexander Hamilton was born on this small, volcanic Leeward island, now independent in a federation with nearby St. Kitts.  
**Answer: Nevis**
  - 10 What flagship of Columbus ran aground off the coast of Hispanola on Dec. 25, 1492?  
**Answer: Santa Maria or Marigalante**
  - 10 This 1917 act gave full American citizenship to the people of Puerto Rico and created the present government system of that island.  
**Answer: Jones-Shafroth Act or Organic Act for Puerto Rico**
  
3. This composer died in 1943 in Beverly Hills, California. For ten points each ...
  - 10 Name this composer of *Rhapsody on a Theme of Paganini* whose third piano concerto is particularly infamous.  
**Answer: Sergey Vasilyevich Rachmaninoff**
  - 10 This work, inspired by a Arnold Böcklin painting, has a 5/8 tempo to imitate the waves lapping on the title locale.  
**Answer: Isle of the Dead or Toteninsel**
  - 10 Based on a Konstantin Balmont's Russian translation of a Poe poem, this choral symphony premiered in Moscow in 1913.  
**Answer: The Bells or Kolokol**
  
4. Bishop and Varmus won the 1989 Nobel prize for discovering v-src. For ten points each ...

10 This kinase catalyzes the addition of phosphate to tyrosine residues on proteins and induces changes in the host cell that lead to malignant transformation, thus making it this type of gene.

**Answer:** oncogene

10 V-src carries an RNA genome and requires reverse transcriptase to produce its DNA payload, making it this kind of virus.

**Answer:** retrovirus

10 V-src causes a cancer of mesodermal connective tissues, such as bone, fat, and cartilage, making it this type of cancer.

**Answer:** sarcoma

5. For ten points each, identify these twentieth century political thinkers:

10 The work of this German critical theorist, perhaps best known for his concept of the public sphere attempts to integrate ideas from sources as diverse as Marx, Kant, and Weber in *Between Facts and Norms*.

**Answer:** Jurgen Habermas

10 This long-time Harvard University professor is most famous for his philosophical defense of liberalism in *A Theory of Justice* and *Political Liberalism*.

**Answer:** John Rawls

10 His autobiography is *The Story of My Experiments with Truth*, and he recounts his two years in South Africa before leading the independence movement in *Satyagraha in South Africa*.

**Answer:** Mohandas Karamchand Gandhi

6. Given the circumstances of an accidental invention, name the inventor for ten points each.

10 In 1928, he noticed that a blue-green mold had killed off all of the staphylococcus in his Petri dish.

**Answer:** Alexander Fleming

10 When he dropped a rubber-sulfur compound onto a hot stove, he created vulcanized rubber.

**Answer:** Charles Goodyear

10 Speaking of rubber, this GE engineer created silly putty while trying to create a rubber replacement during World War II.

**Answer:** James Wright

7. For ten points each, answer these questions about Medieval England.

10 What “great” king of England took the throne in 871 from his brother and fought to decrease the influence of the vikings in England?

**Answer:** Alfred the Great

- 10 This religious group, common from the late 14th century up until the English Reformation, followed the teachings of John Wycliff, who argued for Scripture over priestly authority, apostolic poverty, consubstantiation, and the idea of the “Church of the Saved.”

**Answer:** Lollards or Lollardy

- 10 The Russian Orthodox Church recognizes as a martyr this last Anglo-Saxon king of England, who ruled for less than a year before he was killed at the Battle of Hastings in 1066.

**Answer:** Harold Godwinson or Harold II

8. Answer the following about an olympic sport for ten points each.

- 10 Nedo Nadi at the Antwerp games won the second highest number of gold medals in a single Olympic games. The record, however, is held by this American swimmer at the Munich games.

**Answer:** Mark Andrew Spitz

- 10 Aldo Nadi and Nedo Nadi, like their father, both competed in this olympic sport before Aldo started working in the film industry.

**Answer:** fencing

- 10 With 39 total top three finishes in Olympics and World Fencing Championships, this Milanese fencer, born in 1919, is the most decorated in the history of the sport.

**Answer:** Edoardo Mangiarotti

9. Name these fabrication techniques for ten points each.

- 10 This technique entails applying enough heat and pressure to melt and thus fuse two metals together. Modern methods often accomplish this with an electric arc between the materials to be joined and an electrode.

**Answer:** welding

- 10 As opposed to melting the materials themselves, this technique involves melting an intermediate material with a low melting point, traditionally an alloy of tin and lead, which fuses with the original materials by slightly dissolving them on the surface.

**Answer:** soldering

- 10 This technique is similar to soldering, but uses stronger intermediate alloys, often silver alloys, with higher melting points, usually above 450 degrees Celsius.

**Answer:** brazing or braze

10. Answer some questions about the fifty daughters of Nereus and Doris from clues, For ten points each .

- 10 This Nereid was the wife of Poseidon and Queen of the Sea.

**Answer:** Amphitrite

- 10 This Nereid spurned the affection of the cyclops Polyphemus who then killed her lover Acis.  
**Answer:** Galatea
- 10 After this Queen of Ethiopia boasted that she was more beautiful than all the Nereids, Poseidon sent a sea monster to ravage her country.  
**Answer:** Cassiopeia
11. For ten points each , give the writer who created these Chris Frankels – er – alcoholics. If you need the work, you'll only get five.
- 10 Dr. James O. Incandenza can view the title “Entertainment” without ill-effect because he’s already insane. He killed himself by putting his head in a microwave oven and giving himself a tan.  
 5 Infinite Jest  
**Answer:** David Foster Wallace
- 10 After taking a little too much furmity, he sells his daughter to Mr. Newson before gaining the title position.  
 5 The Mayor of Casterbridge  
**Answer:** Thomas Hardy
- 10 The unnamed protagonist got drunk and sired Brigitta, but still looks down on Padre José, who took a wife to please the government.  
 5 The Power and the Glory  
**Answer:** Graham Greene
12. Answer the following about early Muslim dynasties in India for ten points each.
- 10 Upon Muhammad of Ghur’s death, Qutb-ud-din Aibak took control of his Indian territories, and established a sultanate at this city.  
**Answer:** Delhi
- 10 He was the most powerful ruler in the second family of Delhi sultans, the Khiljis, notable for repelling the Mongol hordes and being the first Muslim to campaign in South India. The Persian poet Amir Khusrau was a member of his court.  
**Answer:** Ala-ud-din Khilji or Juna Khan
- 10 Babur brought the downfall of the Delhi sultinate by winning this April 1526 battle over Ibrahim Lodi.  
**Answer:** Panipat
13. For ten points each , answer these questions about public policy dictated by the interpretation of economists.
- 10 This concept demonstrates that, without transaction costs, all government allocations of property are equally efficient because private parties will naturally bargain among themselves to reach the efficient outcome.  
**Answer:** Coase Theorem

- 10 This term refers to one of the costs of inflation: the resources wasted when inflation encourages people to reduce their holdings of money and wear out the term's name-sake on the way to the bank.  
**Answer: shoeleather costs**
- 10 This result, for which the author won the 1972 Economics Nobel, demonstrates that any voting system using ranked preferences cannot possibly meet a set of criteria when there are three or more candidates.  
**Answer: Arrow's Impossibility Theorem**
14. Answer the following questions about Bildungsromane for ten points each.
- 10 The first Bildungsroman was either *The History of Agathon* by Christoph Martin Wieland or the apprenticeship of this man as chronicled by Göthe.  
**Answer: Wilhelm Meister (accept either name)**
- 10 This novel about an unnamed black man's path through life includes many elements of the bildungsroman. Named characters in the book include Brother Jack, Tod Clifton, and Ras the Exhorter.  
**Answer: Ralph Ellison's Invisible Man**
- 10 This semi-autobiographical novel by William Somerset Maugham explores the development of protagonist Philip Carey.  
**Answer: Of Human Bondage**
15. Answer these questions about a native English religion, for ten points each.
- 10 After spending much of his life in Southeast Asia, he moved back to England, where he began to claim that he was initiated into a survival of European paganism by one Dorothy Clutterbuck; he then went on to formulate theology and rituals for one of the largest neopagan religions today.  
**Answer: Gerald Gardner**
- 10 Gardner used the Anglo-Saxon word for 'witch' for his religion, though it now applies to a wider variety of neopagan beliefs.  
**Answer: Wicca (both WITCH-a and WIK-ka are acceptable pronunciations)**
- 10 Although the case of *Dettmer v. Landon* recognized Wicca as a religion, the Department of Veteran's Affairs refuses to allow this symbol, a five-pointed star drawn with five straight strokes, to be placed on Wiccan graves.  
**Answer: pentagram or pentangle or pentalpha, prompt on "pentacle"**
16. Herbrand's theorem simplifies the search space of computer proofs significantly. Answer some questions about logic and CS for ten points each.
- 10 Herbrand's theorem says that these logical constructs such as "for all" and "there exists," which holds over a range of values, can be permuted.  
**Answer: quantifiers**

- 10 One reason there is currently no extremely fast, powerful, and general automatic theorem prover is this theorem, which states that verifying the consistency of a symbolic logic formula is NP-complete.

**Answer:** Cook's Theorem

- 10 This algorithm for resolution works by the following method: for every variable  $x$ , take every clause  $c$  that contains  $x$  and every clause  $n$  that contains  $\neg x$ , resolve them, add the resolvent to the formula, and remove all  $c$  and  $n$ .

**Answer:** Davis-Putnam

17. For ten points each, identify these rivers along the east coast of the U.S.:

- 10 It contains the Spot Pond, and meets the Charles River in forming the Inner Boston Harbor.

**Answer:** Mystic

- 10 It forms the boundary between Pennsylvania and New York, New Jersey and Pennsylvania, and New Jersey and its namesake state.

**Answer:** Delaware (prompt on "South" river)

- 10 This river, with tributaries including the Chemung and Juniata, begins in New York state, includes Three Mile Island, and empties into the Chesapeake at Havre de Grace

**Answer:** Susquehanna

18. For ten points each, identify these geologic periods:

- 10 The last period in the Paleozoic, its end saw the destruction of roughly 96% of all marine species and 70% of all terrestrial species.

**Answer:** Permian period

- 10 This period was marked by the rise of mammals, the final split of the Gondwana supercontinent, India's collision with Eurasia, and the joining of North and South America.

**Answer:** Tertiary period (accept Paleogene period)

- 10 Ending in Earth's second largest extinction event, this period from 490 to 440 million years ago saw the formation of Gondwana, and perhaps the evolution of fish in this period, but new evidence suggests they developed earlier.

**Answer:** Ordovician period

19. For ten points each, questions about the Carolingian Empire.

- 10 The record of this 842 CE pact is notable for being written in three languages: Vulgar Latin, with which the event is described, and two vernaculars in which each party swore, early forms of German and French. The French text is one of the earliest examples of a non-Latin Romance language.

**Answer:** The Oaths of Strasbourg

- 10 The oaths were taken by two brothers, Charles the Bald and Louis the German, soon after the death of this man, their father. The brothers vowed to unite against their elder brother Lothair.

**Answer:** Louis the Pious or Louis I (prompt if 'Louis' is rendered as Ludwig, Ludovico)

- 10 In the following year, the three brothers signed this treaty dividing up the Carolingian Empire into three parts which roughly correspond to modern Germany, Italy, and France.

**Answer:** The Treaty of Verdun

20. For ten points each, identify the art museum from some of the masterpieces found within it. For five points, you'll be given the city in which the museum is located.

- 10 Titian's *Venus of Urbino*, Dürer's *Adoration of the Magi*, and Caravaggio's *Bacchus*

5 Florence

**Answer:** Uffizi Gallery

- 10 Seurat's *Bathers at Asnières*, Constable's *The Haywain*, and Raphael's *Pope Julius II*

5 London

**Answer:** The National Gallery

- 10 Toulouse-Lautrec's *At the Moulin Rouge*, Hopper's *Nighthawks*, and Caillebotte's *Paris Street, Rainy Day*

5 Chicago

**Answer:** Art Institute of Chicago