

# MSQB Madness

## Packet 6

Written by: Raghav Ahuja, Ainesh Akella, Nikhil Bharadwaj, Sid Dasari, Cole Hartung, Abigail Lee, Sreejit Mukherjee, and Sivaneyan Vivekanandhan.  
Edited by: Andrew Gao, Neev Sahgal, Cindy Gao, and Nathan Sheffield.

*This page is empty to help people who wish to read these questions to themselves.*

## Tossups

1. **This ruler founded a city where Herophilus conducted public dissections. This ruler's first wife was the princess Roxana, and this ruler was thought to be the son of the Greek hero Achilles. This ruler won the Battle of Issus. After defeating King Porus at the Battle of Hydaspes, this ruler annexed the region of (\*) Punjab. After this ruler died, the War of the Diadochi took place, which included the Greek general Seleucus. This owner of Bucephalus brought the end of the Achaemenid ("uh-keh-muh-nid") Empire and defeated king Darius III. Aristotle tutored this ruler. Phillip II was the father of, for 10 points, what Macedonian king known as "the Great?"**

ANSWER: **Alexander the Great** [accept **Alexander III** of Macedon; accept **Alexander** alone after "the Great"; prompt on **Alexander** alone before "the Great"] <History - World, RA>

2. **This organism's MM294 strain is commonly transformed to antibiotics including ampicillin and kanamycin. In one experiment this organism was used to prove that DNA undergoes semiconservative replication. This organism's 0157:H7 ("zero-one-five-seven h-seven") strain produces the deadly Shiga toxin. This organism was infected with T2 bacteriophage in the (\*) Hershey-Chase experiment. This organism was the subject of the Meselson-Stahl experiment, and this organism, infected by the lambda phage, was first used to study the *lac* operon. For 10 points, name this gram-negative, rod-shaped bacteria found in the human intestine, an important model organism.**

ANSWER: **Escherichia Coli** <Science - Biology, SM>

3. **The author of this play added the section "What Happened Afterward" to it to oppose Herbert Tree's alternate ending. A character in this play stuffs chocolates into his mouth to show they aren't poisoned. A man in this play is hired to lecture for the Wannafeller Moral Reform World League after tricking a millionaire into thinking he is England's "most original moralist." A character in this play pays to work in a flower shop on (\*) Wimpole Street after marrying Freddy Eynsford-Hill. The protagonist of this play observes a man taking notes on her in Covent Garden. For 10 points, name this play in which Colonel Pickering makes a bet with Henry Higgins to make Eliza Doolittle seem more ladylike, by George Bernard Shaw.**

ANSWER: **Pygmalion** <Literature - British, AL/CG>

4. **A town in this country, Shibam, is known as the "Manhattan of the Desert" in reference to its mudbrick high-rise buildings. The Asir Mountains encompass this country, with cities such as Mocha. This country's province of Marib is believed to be the biblical Sheba. The currencies of this country's (\*) Aden protectorate includes the East African Shilling. Forces involved in an ongoing crisis in this country include the Supreme Political Council and the Southern Transitional Government. Hodeidah is a major Red Sea port in this country, which is facing a war between a government coalition and Houthi rebels. For 10 points, name this country located on the Arabian Peninsula, whose capital is Sana'a.**

ANSWER: Republic of **Yemen** <Geography - World, SD/NSa>

5. **The standard reference compound for NMR consists of silicon-bonded to four of these groups. Toluene consists of benzene bonded to this functional group. Many of these groups are added in lyonization, the process of creating a Barr body from an (\*) X chromosome. In humans, these groups are often added at CpG islands, playing a huge role in epigenetics by determining which genes are silenced. Two of these groups flank the central carbonyl group in acetone. When free, these functional groups can form short-lived free radicals that dimerize to ethane. For 10 points, name this simplest alkyl group with formula CH<sub>3</sub>.**

ANSWER: **Methyl** groups [prompt on **alkyl groups** before mention; do NOT accept or prompt on "methane"] <Science - Chemistry, NSh>

6. **This character attacks a stash of wineskins, disrupting a round of storytelling. This character's refusal to pay an inn leads to his friend being rolled up in a blanket and tossed up and down. After this character's brain is said to have dried up from "so little sleeping and so much reading," a priest and barber take part in (\*) burning his library.** This character is led by chivalric beliefs to name Dulcinea as his lady. This character has adventures with his horse Rocinante and his squire Sancho Panza, including one in which he attacks windmills. For 10 points, name this "ingenious gentleman" from La Mancha, a delusional knight created by Miguel de Cervantes.

ANSWER: Don Quixote De La Mancha [or Alonso Quixano] <Literature - European, SM>

7. **Samvatsari Pratikraman is done to ask for forgiveness on the last day of this religion's annual holiday of Paryushan. A symbol for this religion is a hand with a chakra on its palm. A sect of this religion believes that the figure Mallinath was female, and another requires that its members be (\*) naked.** Those sects are the sky-clad and white-clad Digambara and Svetambara ("svet-um-bah-rah"). Strict members of this religion do not eat root vegetables due to their fear of eating foods that come from the underworld and harming unseen organisms. This religion's 24th Tirthankara ("tur-thank-ah-ra") was Mahavira. For 10 points, name this Indian religion known as its namesake dharma, which practices nonviolence.

ANSWER: Jainism <RMPSS - Religion, AA>

8. **A diplomatic mission this politician went on was dubbed "the week that changed the world," continuing a de-escalation strategy that had been started with their "ping-pong diplomacy." Under this president, two Attorney Generals, Elliot Richardson, and William French Smith, resigned after refusing to fire an official. In 1952, this politician lost to Pat Brown in a (\*) California gubernatorial election.** This man featured a cocker spaniel in his Checkers speech, and this man, along with Henry Kissinger, pioneered the detente ("DAY-tawnt") policy during the Cold War. The "Saturday Night Massacre" was ordered by this president, who claimed, "I am not a crook." For 10 points, what president pardoned by Gerald Ford resigned in 1974 due to the Watergate Scandal?

ANSWER: Richard Milhous Nixon <History - American, AA>

9. **Stars within this constellation include the Pistol Star, Gomez's Hamburger, and Sakurai's Object. This constellation's brightest star, Kaus Australis, is part of its Teapot Asterism. Nebulae within this constellation include the Red Spider Nebula, the Omega Nebula, and the (\*) Lagoon Nebula.** In Greek mythology, this constellation's arrow points towards the star Antares, also known as the Heart of the Scorpion. This constellation's A\* ("A-star") is a radio source thought to be a supermassive black hole at the center of the Milky Way. For 10 points, name this constellation, Latin for "The Archer," which symbolizes a centaur with a bow.

ANSWER: Sagittarius <Science - Other, AA>

10. **This politician remarked "I have learned about the hot mic," after comparing the Democratic National Convention to "shark week." This politician was criticized for their actions as Ingham County Prosecutor. In 2020, this governor gave the Democratic response to the State of the Union. This governor toured a vaccine factory with Joe Biden in her state's city of Kalamazoo, and she was elected after defeating Bill Schuette on a campaign to "fix the (\*) roads."** The Wolverine Watchmen attempted to kidnap this governor, possibly at her mansion in Lansing. For 10 points, name this Democrat, the current governor of Michigan.

ANSWER: Gretchen Esther Whitmer <Current Events, AA>

11. A set for this work meant to evoke "the foot of a sacred hill" was designed by Nicholas Roerich ("roar-itch"). A khorovod ("cor-rove-odd") in this work was danced by a group the composer called "knock-kneed and long-braided Lolitas." This ballet ends with a chord whose bottom notes spell "D-E-A-D." Camille Saint-Saens ("sahn-songs") apocryphally hissed "If that's a (\*) bassoon, then I'm a baboon" in response to this ballet's unusually high opening solo. "The Adoration of the Earth" and "The Sacrifice" are the two parts of this ballet. For 10 points, what ballet composed by Igor Stravinsky had a 1913 premiere in Paris that sparked a riot?

ANSWER: The Rite of Spring [or Le Sacre du Printemps; accept Vesna svyashchennaya] <Fine Arts - Auditory, CG>

12. In the novel he appears in, this character goes to see a Carry Grant comedy, and describes the wife of his history teacher, Mr. Spencer, as "sort of deaf." This character refuses to pay an extra five dollars to the elevator operator Maurice. This character is given a bloody nose by his roommate, Stradlater. On the way to a hotel, this character asks a (\*) cab driver where the ducks in Central Park go in the winter. This character considers calling his ex-girlfriend, Jane Gallagher. This character's sister is named Phoebe, and he constantly calls others "phonies." For 10 points, name this main character of J.D. Salinger's *The Catcher in the Rye*.

ANSWER: Holden Caulfield [prompt on Caulfield alone] <Literature - American, AA>

13. The Nearin mercenary force arrived late to this battle after being left behind by one side's leader. Two Shasu nomads crucially misinformed that leader of enemy troop movements during this battle. Hugo Winckler discovered records of this battle after excavating one side's capital of Hattusa. Divisions named after Amun and (\*) Ra forded the Orontes River during this battle, after which the newly crowned Hattusili III signed one of the earliest peace treaties in history. For 10 points, what 1274 BCE Egyptian victory for Ramses II was one of the largest chariot battles in history?

ANSWER: Battle of Kadesh [or Battle of Qadesh; do NOT accept or prompt on "Battle of Kamdesh"] <History - Other, CH>

14. A character in this work marries the demoness Hidimbi. This text consists of 18 books, the last of which is known as the Ascent to Heaven. A character in this work is saved from disrobing when dress becomes endless after a group loses a game to Shakuni. That antagonist in this epic has dice made up of his brothers' and father's ashes and bones that can (\*) roll whatever number he commands. On the 11th day of this work's central war, the eunuch Shikhandi helps to kill Bhishma. This text, written by Ganesha and recited by Vyasa ("vee-ah-suh"), centers on the Pandavas and Kauravas' conflict in the Kurukshetra War. For 10 points, name this Indian epic containing the *Bhagavad Gita*.

ANSWER: *The* Mahabharata [do NOT accept or prompt on "Bhagavad Gita"] <Literature - World/Other, AA>

15. It's not "Gangnam Style," but in the music video for this song, a man in a suit repeatedly bumps into passersby on a city street. This song's narrator sings about the "weird and the novelties." The mother of this song's narrator advises him "don't give up, it's a little complicated." The narrator of this song claims he "didn't have a dime but [he] always had a (\*) vision." The music video for this song features a man walking up the side of a skyscraper. The lyrics "Burn your biographies / Rewrite your history" is sung by Brendon Urie in this song. For 10 points, name this song in the album *Pray for the Wicked* where the narrator "had to have" the title ambitions "for a living," by Panic! At the Disco.

ANSWER: "High Hopes" <Trash/Other, CG>

16. **This city houses a "Frog Pond" near an equestrian statue of George Washington. The Long Wharf is a pier in this city, whose Red Line stops by Park Street and South Station. A tunnel under this city that connects it to its Logan International Airport was part of this city's "Big (\*) Dig" project. It's not Chicago, but this city's tallest building, the I.M. Pei designed John Hancock Tower, is located near its Prudential Tower and its neighborhood of Back Bay. Many tourists visit this city's Quincy Market in its Faneuil ("FAN-uil") Hall Marketplace. The Charles River splits this city and neighboring Cambridge. For 10 points, Fenway Park is located in what Northeastern capital of Massachusetts?**

ANSWER: **Boston**, Massachusetts <Geography - US, AG/NS>

17. **It's not a jotunn ("yowe-tn"), but this figure's encounters with a deity are depicted on the Hordum and Altuna Stones, where they pull the deity's foot through boards. In one myth, this figure was captured when that same deity used the head of Hymir's largest ox as bait. In another myth, Utgard-Loki disguises this figure as a cat that a deity only manages to (\*) lift one paw of. At Ragnarok, this figure causes a deity to die after nine paces after biting him, and will be killed by Thor. For 10 points, name this child of Loki and Angrboda ("ahn-gur-boh-dah"), a snake-like beast that wraps around the world.**

ANSWER: **Midgard Serpent** [accept **Jormungandr** or **World Serpent**] <RMPSS - Mythology, SM>

18. **Hubert-Joseph Henry slit his throat as a result of this incident. Alphonse Bertillon accused the central figure in this incident of "autoforgery" after analyzing handwriting samples. An article about this incident was published in the newspaper *L'Aurore* ("luh-roar") and claimed the guilt for it lay on Major (\*) Esterhazy. This incident concerned plans for the 75 mm gun and resulted in its victim's imprisonment on Devil's Island. Emile Zola criticized the government's handling of this incident in *J'Accuse*. For 10 points, name this affair in which a French Jewish artillery officer was accused of sending military secrets to Germany.**

ANSWER: **Dreyfus** affair <History - European, CG>

19. **In one painting by this artist, a characteristically placed window on the left illuminates a woman standing in front of wall tiles depicting Cupid and a foot warmer. Two works by this artist were shown to have been cut from the same material, and one of those paintings depicts its central figure reaching for a globe. This artist may have used Anthonie van Leeuwenhoek ("lay-ven-hook") as a model for *The (\*) Astronomer* and *The Geographer*. A servant in one of this artist's works stands over a container sitting on a blue tablecloth and pours milk into it. In another work by this artist, a girl with the title accessory wears a blue headband and beige-colored clothes. For 10 points, name this artist of *The Milkmaid* and *Girl with a Pearl Earring*.**

ANSWER: Johannes **Vermeer** <Fine Arts - Visual, AA/CG>

20. **By D'Alembert's ("dull-un-bear's") principle, when inertial forces are included, a system is in dynamic equilibrium if the virtual form of this quantity is 0 for all virtual displacements. In a curl-free force field, this quantity around any loop must be 0, so such force fields are called "conservative." This scalar quantity must be 0 for objects undergoing circular motion, since it's instantaneously proportional to the (\*) cosine of the angle between force and velocity. For a single particle moving along a path, this quantity is equal to the change in kinetic energy. For a constant force F and parallel displacement d, this quantity equals F times d. For 10 points, name this quantity of energy change, measured in Joules.**

ANSWER: **work** [accept principle of virtual **work**] <Science - Physics, NSh>