

2021 AQBL February
Packet 7

1. **When another character asks if this figure “exists the same way I do” that character is told “you do not exist.” This character’s exploits are described as creeping further back into the thirties and forties, though the protagonist does not recall hearing their name before the sixties. According to Emmanuel Goldstein, this character is all-powerful and potentially immortal, and they are described by (*) O’Brien as “the embodiment of the Party.” A novel ends with the brainwashed Winston Smith thinking “he loved” this character. For 10 points, name this unseen leader of Oceania who, in George Orwell’s *Nineteen Eighty-Four*, is “watching you.”**
ANSWER: **Big Brother** <MB, British Literature>

2. **American involvement in this event was preceded by the Preparedness Movement led by Elihu Root and Leonard Wood. During this conflict, Treasury Secretary William Gibbs McAdoo helped sell Liberty Bonds and James Montgomery Flagg designed posters depicting Uncle Sam pointing at the viewer and saying “I want (*) you” for army recruiting. U.S. involvement in this war began after the Zimmerman Telegram asked Mexico to launch an invasion of the southwest, and the *Lusitania*’s sinking by a German U-boat. For 10 points, name this global conflict ended by the Treaty of Versailles.**
ANSWER: **World War I** (or **WWI**) <MB, American History>

3. **One piece in this genre begins with the quiet descending notes long C, A-flat, long F in 12/8 time. Another piece in this genre opens with a three chord deceptive cadence that has the word “Lebewohl” written under it in its score. A piece in this genre that is labeled “quasi una fantasia” has its first movement played entirely sostenuto with triplets in (*) C sharp minor. That piece in this genre was nicknamed for a night time reflection on Lake Lucerne. A set of 32 of these pieces that includes ones labeled “Appassionata”, “Les Adieux”, and “Pathetique” were written by Ludwig van Beethoven. For 10 points, what genre of solo piece for piano includes one called “Moonlight”?**
ANSWER: piano **sonatas** <ES, Auditory Fine Arts>

4. **The spectral density of blackbody radiation depends on this function of frequency, according to Planck’s law. The tidal force on an object varies inversely with this power of distance. The electric field of a dipole is inversely proportional to this power of distance. This ordered time derivative of position is (*) jerk. Kepler’s law of this number predicts that the square of a planet’s orbital period is proportional to [emphasize] *this power* of the semi-major axis of its orbit. Newton’s law of this number states that every action has an equal and opposite reaction. For 10 points, identify this number of spatial dimensions.**
ANSWER: **3** (accept **third** or **cubed**) <DS, Physics>

5. **A museum designed by this architect includes an atrium nicknamed “the flower” and Richard Serra’s *The Matter of Time*, an installation of torqued steel sculptures along the Nervion River. This architect designed a bent, narrowing glass tower for a house inspired by Fred Astaire and Ginger (*) Rogers, and caused heat issues for neighboring buildings by designing a steel facade for a music center. For 10 points, name this Canadian-American architect of the Dancing House, the Walt Disney Concert Hall, and the Guggenheim Museum Bilbao.**
ANSWER: Frank **Gehry** <MB, Other Fine Arts>

6. **This state's flag uses a tan color officially known as buff. Cultural debates in this state include if its Central region, which would include its city of New Brunswick, actually exists, and whether to call a sandwich a sub or a hoagie. The Pine Barrens run through this state, whose Meadowlands have suffered from environmental degradation. Cape (*) May is a resort area in the south of this state, whose town of Menlo Park was home to Thomas Edison's laboratory. For 10 points, name this state east of the Delaware River, with cities Atlantic City, Newark, and Trenton.**
ANSWER: New Jersey <MB, Geography>
7. **This object provides the real part of the Fourier transform of the quantity "sine x to the power of n plus 1 all over x" for even values of n. The hockey-stick identity relates the sum of diagonal values on this object to an adjacent value present within it. This entity, which was described by the Chinese mathematician Yang Hui in 1261, gives powers of (*) two when its row elements are summed. This object's diagonals summed give the Fibonacci numbers, and it contains the binomial coefficients in its rows. For 10 points, name this mathematical entity in which an element's value is the sum of two elements directly above it, named for a 17th century French mathematician and a three sided shape.**
ANSWER: Pascal's triangle <DS, Math>
8. **In this work, faith, hope, and charity are considered to be the three theological virtues, and characters who possess those as well as the cardinal virtues can traverse the primum mobile to reach the Empyrean. Earlier in that work, the narrator travels up a mountain and through a sphere of fire on the Wednesday after Easter. In this work, that narrator has his path blocked by a (*) leopard, and lion, and a she-wolf, and passes a gate stating "abandon all hope, ye who enter here." Virgil and Beatrice guide the narrator through heaven and hell in this work. For 10 points, *Purgatorio*, *Paradiso*, and *Inferno* are all sections of what poem by Dante?**
ANSWER: *The Divine Comedy* (accept Paradiso before "leopard") <MB, European Literature>
9. **A leader of this country claimed that he would "eat grass or leaves" until it obtained nuclear weapons; that leader was later overthrown in Operation Fair Play. A movement to secede from this country was led by the Awami League. At a 2007 rally, a female leader of this country and daughter of former leader Zulfikar (*) Ali was assassinated at a political rally in Rawalpindi. This country began enriching uranium in response to the smiling Buddha test and was once led by the Bhuttos. For 10 points, Islamabad is the capital of what country, which disputes Kashmir with India?**
ANSWER: Islamic Republic of Pakistan <AK, World History>
10. **God asks this Biblical figure about being concerned for a group of people who can't tell the difference between their two hands. This Biblical figure complains to God after a worm bites the root of a vine that shields him from the sun, causing it to wither. In a book named for this figure, God decides to spare a city from destruction after its king decrees a fast and repentance. After being told to go to (*) Nineveh, this figure flees for Jaffa and boards a ship before being cast overboard in a storm. For 10 points, name this Biblical prophet who is swallowed by a giant fish.**
ANSWER: Jonah <MB, Religion>

11. **In this novel, a man brags that his parents live in a “beachfront villa” in Rockingham when another man tries to bribe him. The protagonist of this novel escapes to California and meets his future wife at a flea market in San Jose before becoming a successful novelist. That man, who begins this novel with the line “I became what I am today at the age of twelve,” repeats his friend’s line when he tells Sohrab “For you, a (*) thousand times over.”** This novel includes the sociopathic Assef as well as the Hazara Hassan, the latter of whom serves the title role for Amir. Afghanistan is the main setting of, for 10 points, what novel by Khaled Hosseini?
ANSWER: *The Kite Runner* <AN, World Literature>
12. **In one work, this philosopher compares himself to a midwife, by saying he cannot generate ideas but can help bring them out of others. This philosopher also asked whether something is pious because the Gods love it or the Gods love something because it is pious, and argued against escaping unjust imprisonment, saying a (*) virtuous life is better than a long life.** Later, this philosopher discusses the afterlife and the immortality of the soul before poisoning himself with hemlock. This narrator of *Crito* and *Euthyphro* compared himself to a gadfly when accused of corrupting the youth of Athens. For 10 points, name this central figure of many dialogues by Plato.
ANSWER: Socrates <MB, Philosophy>
13. **This artist depicted a skeleton with flowers in its heart above a girl in an orange blanket in *The Dream*. A seashell with bullet holes and an island featuring a skyscraper atop a volcano are in another work by this artist which takes place in a bathtub. A black monkey and cat, as well as a hummingbird and thorn (*) necklace are included in another work by this artist of *What the Water Gave Me*.** This artist depicted herself pierced with nails and split in half by a metal corset in *The Broken Column*. The wife of Diego Rivera, for 10 points, name this Mexican artist known for her unibrow and self-portraits.
ANSWER: Magdalena Carmen Frida Kahlo y Calderón <AN, Visual Fine Arts>
14. **In an interview with Jimmy Fallon, this artist revealed they owned the Instagram account Onion Rings Worldwide. This artist released the memoir *Going South* about a visit to Antarctica, and critiqued consumption culture in a song originally released on *The Love Club EP*. This artist titled that song after viewing a photo of baseball player George (*) Brett, and it describes “songs like / gold teeth, Grey Goose” and states “We’re driving Cadillacs in our dreams.”** For 10 points, name this artist of *Melodrama* and *Pure Heroine*, which includes the single “Royals.”
ANSWER: Lorde (or Ella Marija Lani Yelich O’Connor) <MB, Pop Culture>
15. **This country established a federal government after several of its Catholic regions formed the Sonderbund alliance during an 1847 Civil War. During World War II, the Nazi government exchanged thousands of pounds of gold for currency with this country, which did not give women the right to vote until (*) 1971.** A folk hero from this country shot an apple off his son’s head while uniting its cantons in a confederacy independent of Austria. This historically-neutral country is in the Schengen area but not the EU. For 10 points, name this country whose banking industry is centered in Zurich.
ANSWER: Switzerland (or Swiss Confederacy) <MB, European History>

16. **A poem by this author describes “a rock, a river, a tree” as “hosts to species long since departed” and commands “you may stand upon me / but do not hide your face.” In another poem, this author asks “does my sassiness upset you?” and states “I am the dream and the hope of the slave.” That poem by this author also states “you may write me down in history / with your bitter, twisted lies / you may trod me in the very dirt” before comparing herself to dust. This poet’s “On the (*) Pulse of Morning” was read at the first inauguration of Bill Clinton. For 10 points, name this poet of “Still I Rise,” who wrote about growing up in Stamps, Arkansas in *I Know Why the Caged Bird Sings*.**
ANSWER: Maya Angelou <MB, American Literature>
17. **A deprotonated form of these compounds reacts with an organohalide to form an ether in the Williamson ether synthesis. The hydroboration-oxidation reaction converts alkenes to these compounds. The letters B and E in the ABE fermentation stand for two of these compounds, and the (*) isopropyl variety of these compounds can be generated through the combination of water and propene in a hydration reaction. These compounds contain at least one hydroxyl group bonded to a carbon atom. For 10 points, name these organic compounds that are frequently found in “drinking” and “rubbing” varieties.**
ANSWER: alcohols [accept any answer that mentions alcohol] <CS, Chemistry>
18. **After two countries realized they spelled “Hamilcar” differently, the name of a joint operation at this location was changed to “Musketeer;” that operation was in response to a seizure started when a leader pronounced “Ferdinand de Lesseps.” The “Yellow Fleet” was trapped at this location, which was closed between 1967 and 1975. Lester Pearson won the Nobel Peace Prize for resolving a (*) “crisis” at this location, where it was invaded by the U.K., France, and Israel after it was nationalized by Gamal Abdel Nasser. During the Yom Kippur War, Egyptian troops crossed, for 10 points, what maritime route connecting the Red Sea with the Mediterranean?**
ANSWER: Suez Canal <MB, Other History>
19. **An animal serving this civilization’s patron deity has the legs of a lion but the talons of an eagle, and a snake’s tongue, and is named Mushussu. That patron deity of this civilization uses the Imhullu, from which they can control the winds, to defeat the sea goddess Tiamat in its creation epic, the *Enuma* (*) *Elish*. A goddess commemorated by a blue “gate” from this city was rescued from the Underworld by Enki and sent the Bull of Heaven after Enkidu and Gilgamesh. For 10 points, Ishtar and Marduk were worshipped in what city on the Euphrates River?**
ANSWER: Babylon (prompt on Mesopotamia; Note: While Ishtar was worshipped by many Mesopotamian cultures, Marduk is specifically Babylonian) <MB, Mythology>
20. **The siphuncle in organisms belonging to this phylum is similar to the swim bladder found in bony fish. Quahogs and chitons belong to this phylum. Organisms in this phylum are characterized by the presence of a tongue-like radula and a mantle. The now-extinct ammonites belong to this phylum. Shells of animals in this phylum are mostly made of (*) chitin and conchiolin combined with calcium carbonate, and the underside of animals in this phylum consist of a muscular foot. Bivalvia and gastropoda are among the classes of invertebrates in this phylum. For 10 points, name this phylum that contains organisms like octopuses, cuttlefish, and snails.**
ANSWER: mollusca [accept mollusks] <CS, Biology>

Tiebreaker/Extra Question

The Haldane effect describes the increased removal of carbon dioxide from these cells. They're not endothelial cells, but these cells are able to synthesize nitric oxide by using L-arginine as a substrate. Polycythemias are caused by an excess amount of these cells, and a deformation of these cells is present in (*) sickle cell anemia. These cells are formed from hemocytoblasts within the bone marrow. These cells lack a nucleus, and the cytoplasm of these cells contains a large amount of hemoglobin. For 10 points, name these cells that transport oxygen through the bloodstream.

ANSWER: **red blood cells** (accept **erythrocytes**) <CS, Biology>