

**Brookwood Invitational Scholars Bowl XXVI: Brought to you by the letter J'accuse**  
**Round 10**

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**Tossups**

1. The use of the word “homoousios” was decried as a “Sabellian tendency” at this event and prompted one central figure to be exiled to Illyricum. The Quartodeciman Controversy was finally settled at this event, which scheduled a feast for the Sunday after the fourteenth of Nisan. The word “filioque” was controversially inserted into the product of this meeting. Bithynia was the location of this event, to make it easier for bishops to arrive by sea, and also so that the emperor could keep an eye on Arius, whose heretical views were condemned at this council. For 10 points, name this first ecumenical council called by Constantine in Turkey, which produced a namesake creed.

ANSWER: First Council of Nicaea

2. In one work by this composer, the “Mystic Circles” movement’s melody calls back to the previous movement. An opera by this composer tells the story of Anne Truelove and Tom and is based on a William Hogarth painting series. This composer of *The Rake's Progress* created a ballet with a “Berceuse” before its finale. In that work, an “Infernal Dance” is performed by Kashchei. One of this man’s ballets opens with a high register bassoon solo, and nearly caused a riot at its premiere because of provocative choreography by Vaslav Nijinsky and the near-atonal music. For 10 points, name this composer of *The Firebird* and *The Rite of Spring*.

ANSWER: Igor Stravinsky

3. Orpheus was killed by devotees of this figure. Perseus and the Argives defeated this deity and his followers after he stumbled into Mycenaea. This grandson of Cadmus and Harmonia rescued his mother from the Underworld and placed her among the stars before ascending to Mount Olympus. He became the immortal lover of Ariadne. This wielder of the thyrsus sought revenge on Lycurgus and Pentheus when he returned from India. The maenads were female followers of this god. His cult celebrated the Eleusinian Mysteries. Midas did a favor for Silenus, one of this god’s devotees. For 10 points, name this leader of the satyrs, who presided over ecstasy and wine.

ANSWER: Dionysus

4. The cross section of this phenomenon is proportional to atomic number raised to the fifth. One way to measure this phenomenon experimentally is to measure the stopping potential. This phenomenon is used for the function of night-vision goggles. A plot of the energy of this phenomenon graphed against frequency has an x-intercept at the threshold frequency, a y-intercept at the negative work function, and a slope of Planck’s constant. It was first demonstrated by Heinrich Hertz, and Einstein won a Nobel Prize for explaining it. For 10 points, name this effect in which electrons are ejected from a metal when light is shined on it.

ANSWER: photoelectric effect

5. One sonnet written by an author from this country ends “No hand will reach into the obscure depth/to argue with me over your handful of bones.” Another poem written by an author from this nation ends “It is the hour of departure. Oh abandoned one!” This nation, home to the author of *Sonnets of Death*, is also home to an author who wrote an ode to tuna, and proclaimed “Arise to birth with me, my brother” in his “Heights of Macchu Picchu”. A poet from this country lamented “Tonight I can write the saddest lines”. For 10 points, name this nation home to Gabriela Mistral and the author of *Canto General* and *Twenty Love Poems and a Song of Despair*, Pablo Neruda.

ANSWER: Republic of Chile

6. A plaque inscribed with this man’s words “Enough of honor cannot be paid” was erected after his son died near the salt springs of Blue Licks. According to one account, this man was taken to Chillicothe (CHILLY-COATH-EE) before being adopted by Blackfish, but escaped after learning of a siege on a borough named for him. This man partnered with Richard Callaway to track Hanging Maw and the Cherokee who had captured his daughter Jemima. This explorer was hired by the Transylvania Company to blaze a 200 mile trail through the Cumberland Gap. For 10 points, name this architect behind the Wilderness Road, a legendary Kentucky frontiersman who lends his name to a coontail cap.

ANSWER: Daniel Boone

7. In microscale, Craig tubes are used for this procedure, which can be quantified using the beta ratio. Celite (SEE-LIGHT) is often added to Pasteur pipettes used for this process. The final step of a re-crystallization involves cooling a sample down, then doing this process. When it occurs in the presence of a vacuum, Buchner (BYOOK-NER) funnels are often used. This process commonly utilizes sand when it is applied to raw water. Unlike sieving, this procedure makes use of multiple separation points. When only using gravity, this process requires special porous paper. It is often used to separate precipitates from saturated solvent. For 10 points, name this method of separating solids and liquids.

ANSWER: **filtration** [or word forms; accept specific forms like “vacuum **filtration**”]

8. In a play by this author, a character drifts offstage, presumably dead, with the line, “Now you see me, now you --”, and often ends the phrase “give us this day our daily--” with words like “week” and “mask”. In one of this man’s plays, a 13-year-old savant trying to prove Fermat’s Theorem to her tutor Septimus Hodge is named Thomasina Coverly. *The Rape of the Sabine Women*, or, rather, woman, or, rather, Alfred, is announced by the Player in his best-known play. That work begins with a coin landing heads up ninety times in a row and features two characters from *Hamlet*. For 10 points, name this playwright of *Arcadia* and *Rosencrantz and Guildenstern are Dead*.

ANSWER: Tom **Stoppard**

9. In *Through a Glass Darkly*, a crazed Karin tells her husband she saw God’s face as one of these figures. One of them aided Muhammad in the Cave of Thaur during the Hijra. Some of these animals like *Larinioides* move by ballooning. Louis XI’s nickname invoked one of these animals. One of them launches “filament, filament, filament, out of itself” in a Whitman poem titled for a “noiseless, patient” one. Another of these creatures learns all the world’s stories in Ashanti myth. In another tale, an enraged Athena transforms a girl into one of these creatures after a weaving contest. For 10 points, name these animals associated with Anansi and Arachne.

ANSWER: **spiders** [or **arachnids** before the end]

10. A song in this musical repeatedly uses an E-flat-A tritone, ironically described as “the most beautiful sound I ever heard.” Another song from this musical alternates between 6/8 and 3/4 time for a verbal duel with a habanera theme, eventually ending “Everyone there will have moved” to the title location. This musical’s love theme is reprised during preparations for a “rumble”, after which the leads sing “Somewhere.” They had earlier sung “Tonight” atop a fire escape. This musical includes the song “America”, in which Anita and Maria mock the other Sharks. For 10 points, name this musical inspired by *Romeo and Juliet* and composed by Leonard Bernstein.

ANSWER: **West Side Story**

11. The Siskiyou Wilderness is a section of the Klamath Mountains located in the northern part of this state. The largest amount of dust pollution in the US comes from a dry lake in this state where borax is mined. After a 1905 flood, this state’s largest lake was formed near the Coachella Valley. This state is home to Mono and Owens Lakes. A bristlecone pine tree called Methuselah, located here, is the oldest single living organism on the planet. This home of the Salton Sea is also the location of the largest mountain outside Alaska in the US. The San Joaquin river flows from the Sierra Nevada in this state. For 10 points, name this home of Yosemite National Park.

ANSWER: **California**

12. An economic minister in this nation was deemed a “one-club golfer” in the 80s for relying exclusively on interest rates. In October 1986, this country experienced a “Big Bang” deregulation of financial markets. George Soros made a billion dollars on September 16, 1992, this country’s Black Wednesday, by shorting its currency, forcing it to withdraw from the ERM. Labor strikes in this country in 1979 led to the “Winter of Discontent.” This nation hasn’t yet accepted the “three pillars,” because it didn’t join the Eurozone under John Major. For 10 points, George Osborne is the current Chancellor of the Exchequer in which country which uses the Pound sterling?

ANSWER: **England** [or the **United Kingdom** of Great Britain and Northern Ireland; or **UK**; or Great **Britain**]

13. This is the most notable disease caused by a pathogen with single-stranded anti-sense RNA. Jeanna Giese survived this disease with help of the Milwaukee protocol. Visible Negri bodies in the hippocampus are symptomatic of this disease. Almost no one survives this bullet-shaped rhabdovirus without post-exposure prophylaxis, which was originally administered via a painful shot to the abdomen. Symptoms of this disease, which is mostly spread by bats in the US, include hallucinations, excess salivation, and a characteristic inability to drink water. For 10 points, name this zoonotic disease which can be transmitted via a bite.

ANSWER: **rabies** [or **hydrophobia**]

14. The speaker of one poem by this author asks “How many flies buzzed round you innocent of your grime” before telling the subject “you were never no locomotive.” One of his poems asks a “lonely old grubber” his thoughts of America after watching Charon’s boat descend into the “black waters of Lethe.” This author of the “Sunflower Sutra” addressed a person who had thrown “potato salad” at some “Dadaism lecturers” in a poem which repeats “Moloch” in the second section. His best known work begins “I saw the best minds of my generation destroyed by madness.” For 10 points, name this Beat poet of “A Supermarket in California” and “Howl.”

ANSWER: Allen **Ginsberg**

15. Samson asks the Philistines “out of the eater, something to eat; out of the strong, something sweet”, after spotting bees making honey in the carcass of these animals. These animals are associated with the only tribe of Israel who supported David, not Saul’s line, so one appears on Jerusalem’s coat of arms. According to the Book of Revelation, the only person worthy to break the Seven Seals is this animal “of Judah”. After an edict forbidding prayer for thirty days is passed, an angel shuts the mouths of these animals. Darius the Great used his own signet ring to seal off a place home to these animals. For 10 points, name these beasts that did not kill Daniel in their den.

ANSWER: **lions**

16. In one painting by this artist, a Triton on a white horse blows a trumpet as two dolphins pull a man in a red robe. This artist also included a monstrosity in the center of a work in which scholars debate over Transubstantiation. This painter of *The Triumph of Galatea* and *La Disputa* depicted Mary holding a book and the infants John and Jesus holding a bird in his *Madonna of the Goldfinch*. The central figure in his most famous work points towards the heavens and stands on top of some stairs, apart from Diogenes, but next to Aristotle. For 10 points, name this Italian Renaissance painter of *The School of Athens*.

ANSWER: **Raphael** [or **Rafael** or Raffaello Sanzio da **Urbino**]

17. This man lost one battle when his cavalry fell into a ravine at the hollow road to Ohain, and he was beaten by an opposing commander’s use of the reverse slope defense. This commander executed the “Ulm Maneuver” in a successful campaign which vanquished Mikhail Kutuzov, Alexander I, and Francis II. This man blamed two of his military defeats on “the Spanish Ulcer” and “General Winter”. Waiting for mud to dry, this leader lost a battle when Prussian troops led by Gebhard von Blucher outflanked his cuirassiers. This man’s defeat by the Seventh Coalition ended the Hundred Days and left him exiled to St. Helena. For 10 points, name this Frenchman who lost at Waterloo.

ANSWER: **Napoleon** Bonaparte [or **Napoleon I**; prompt on “Bonaparte”; do not accept “Louis-Napoleon” or “Napoleon III”]

18. Material found in “Dodo” and “Goldilocks” confirmed the existence of this substance, which is suggested by prominent “blue berries.” This substance was proposed as the reason that chunks of bright material disappeared from *Phoenix*’s arm. A mistranslation of Giovanni Schiaparelli convinced 19th century scientists that *canali* actually contained this. Rifts in the Valles Marineris may have been created by this substance, which *Opportunity* found near Endeavor Crater. Fluvial conglomerates discovered by *Curiosity* indicate that this substance once existed far from the poles. For 10 points, name this substance which would indicate that life could exist on the Red Planet.

ANSWER: **water** on Mars [or Martian **water**; or **ice** on Mars; or **H2O**]

19. A character in this novel calls his friend a “fairy” for wearing a bright pink shirt. The protagonist of this novel does not cry after learning that his friend’s heart was stopped by a piece of bone marrow. In this novel, a game of Blitzball on the beach is played by members of the Super Suicide Society of the Summer Session. Suffering hallucinations, Leper Lepellier quits the army in this book. This novel opens at the Devon School, where the adult narrator reminisces about jumping off a tree into a river and causing Finny to break his leg. For 10 points, name this novel narrated by Gene Forrester, by John Knowles.

ANSWER: A *Separate Peace*

20. Rao Jin began a website “anti” this organization, which controversially fired Octavia Nasr in 2010. Poppy Harlow, who works for this organization, was criticized for his handling of the Steubenville rape case. Employees here worried about multiple barking dogs and said, “It’s as though a bomb dropped” during the Boston marathon bombings. In August 2012, an employee here was fired for plagiarism, and his “GPS” show was off the air for a week before he was vindicated.. Hilary Rosen, Candy Crowley, Fareed Zakaria, and Anderson Cooper work for this network. For 10 points, name this TBS-owned channel headquartered in Atlanta, the “worldwide leader in news.”

ANSWER: CNN [or Cable News Network]

**The Round is Now Over. Continue Only if There is a Tie.**

21. This short story’s epigraph quotes *The Castle of Indolence* by describing “dreams that wave before the half-shut eye.” One character in this story wants his adversary to vanish in a “flash of fire and brimstone,” and is a strict follower of the “Spare the rod and spoil the child” proverb. At the end of this short story, the villagers find a hat and cracked pumpkin beside a brook. The protagonist is unable to escape the “goblin rider” by reaching a bridge, allowing Brom Bones to marry Katrina van Tassel. For 10 points, name this Washington Irving story in which Ichabod Crane is killed by the Headless Horseman.

ANSWER: “The Legend of Sleepy Hollow”

### Round 10 Bonuses

1. On July 8, 2013, this man announced that he wouldn't run for governor of Texas, ending his fourteen-year office. For 10 points each:

[10] Name this governor whose failed 2012 presidential bid was partly blamed on the fact that he wanted to cut the Departments of Commerce, Education, and, um....oops.

ANSWER: Rick Perry

[10] Perry made headlines again in summer 2013 when he faced a filibuster raised by Wendy Davis over a Texas bill about this issue. Perry called the legislature back in to try to pass the bill.

ANSWER: abortion [or birth control; or equivalents]

[10] Perry will likely be succeeded as governor of Texas by Greg Abbott, unless this Democratic mayor of San Antonio has a say. This man gave the keynote address at the 2012 Democratic National Convention.

ANSWER: Julian Castro

2. Because this character has a liver illness just short of jaundice, he can go to the hospital whenever he wants, and he walks around naked after being traumatized by Snowden's death. For 10 points each:

[10] Name this character who goes to Sweden to find Orr at the end of the novel he appears in.

ANSWER: John Yossarian

[10] Yossarian, along with Milo Minderbinder, Doc Daneeka, and various other alliteratively-named characters, appears in this Joseph Heller war satire.

ANSWER: Catch-22

[10] Milo tries to convince Yossarian to eat the chocolate-covered form of this commodity after he buys the entire stock of it. This product ends up costing Milo a good portion of his syndicate.

ANSWER: cotton

3. This man's regime was opposed by eighty-two revolutionaries setting sail from Mexico on the *Granma* yacht. For 10 points each:

[10] Name this dictator who revoked the rights of the people guaranteed by the 1940 Constitution. He sought haven with Rafael Trujillo after being overthrown in the 26th of July Movement.

ANSWER: Fulgencio Batista y Zaldívar

[10] Fulgencio Batista was overthrown in a coup led by this Cuban revolutionary, who caused the US all sorts of headaches during the Bay of Pigs invasion and the Cuban Missile Crisis.

ANSWER: Fidel Castro

[10] The Cuban Revolution is seen as one of these wars between the US and USSR, since neither participated but backed different sides. The civil war between the Sandinistas and FSLN was one of these conflicts for the US.

ANSWER: proxy wars [or proxy warfare]

4. This composer created over 50 works in a genre based on a dance from his home country, the mazurka. For 10 points each:

[10] Name this Polish composer of the "Minute Waltz."

ANSWER: Frederic Chopin

[10] Chopin wrote a number of these works, including the "Black Keys" and the "Revolutionary." These works are written to help the performer perfect a particular skill on the instrument.

ANSWER: étude

[10] Chopin's "Prelude, Opus 28, no. 20" was given this two-word name for its chords' slow progression. More famously, Chopin's "Piano Sonata #2" has this name due to its somber tone.

ANSWER: "funeral march" [accept "Marche funèbre" but no other answers]

5. Answer the following about indefinite integration, for 10 points each:

[10] It is customary to add this term to the end of indefinite integrals, because the derivative of these terms simply equals zero. These values are numbers, rather than variables.

ANSWER: constant term [or constants; or C]

[10] The abbreviation “LIPTÉ” is used in this integration technique, the inverse of the product rule, which states that the integral of  $u \, dv$  equals the integral of  $uv$  minus the integral of  $v \, du$ .

ANSWER: integration by parts

[10] One of these diagrams can be used to represent all of the indefinite integrals of a function. These diagrams used to model differential equations consist of short line segments drawn at each ordered pair.

ANSWER: slope fields [or direction fields]

6. This philosophy puts a large influence on wearing the khadi cloth. For 10 points each:

[10] Name this philosophy of nonviolence based on “love” and “firmness” often translated as “soul force.” It spawned several resistance movements in the 1930s.

ANSWER: Satyagraha

[10] A key principle of *Satyagraha* is to act courteously if one is in an institution of this type. Jeremy Bentham’s Panopticon is an invented example of this type of institution.

ANSWER: prisons

[10] Gandhi’s *Satyagraha* exemplified civil disobedience, a two word phrase which titles a philosophical tract by this American Transcendentalist. He wrote about his time at a pond in his work *Walden*.

ANSWER: Henry David Thoreau

7. Before *Madagascar* comes to a theater near you, you decide to go to a Madagascar theater, you know, to see a ballet or something. For 10 points each:

[10] Before you go to the ballet, you need to get to the island, so you kayak across this channel separating Madagascar from mainland Africa.

ANSWER: Mozambique Channel

[10] Unfortunately, you forgot to brush up on both Malagasy and this other official language of Madagascar. This European language is spoken in Djibouti, Cameroon, and the island of Reunion.

ANSWER: French

[10] Thus unable to enjoy the ballet, you decide to visit a grove where this commodity is extracted from orchids of a namesake genus. Madagascar is the world’s second producer of this foodstuff, after Indonesia.

ANSWER: vanilla

8. European explorers often went on long voyages only to return home disappointed. For 10 points each:

[10] This Spanish explorer and first governor of Puerto Rico was motivated by rumors of the Fountain of Youth, but never found it. He later sailed down the eastern coast of Florida and “discovered” the Dry Tortugas.

ANSWER: Juan Ponce de León [prompt on partial answer]

[10] In 1541, this Frenchman from St. Malo began his search for the mythical Kingdom of Saguenay for diamonds, but failed. In 1534, he sailed up the St. Lawrence River to modern day Quebec.

ANSWER: Jacques Cartier

[10] This historical phrase comprised of three rewards sums up why most explorers traveled to the New World. All or nothing, give the *exact* phrase which motivated them to sail the seven seas.

ANSWER: “God, gold, and glory”

9. What's the only thing worse than waking up on your birthday to find out that you've been arrested for a crime you didn't commit? Waking up as a giant cockroach. For 10 points each:

[10] Name the Czech-German author who wrote about Gregor Samsa's unfortunate transformation in *The Metamorphosis*.

ANSWER: Franz **Kafka**

[10] In this Kafka novel, a priest explains to Josef K. a parable entitled "Before the Law", before K. is stabbed by two mysterious men. He responds "Like a dog!" and dies.

ANSWER: *The **Trial*** [or *Der **Prozess***]

[10] Kafka's story "A Report to an Academy" is narrated by a character of this type. A character of this type is responsible for murdering Madame L'Espanaye in the first-ever detective story.

ANSWER: an **ape** [or an **orangutan**; or a **monkey**; or various other members of the **primate** family which are not human]

10. (Note to moderator: Read the third part of this bonus, slowly.)

Punnett squares are used to study his namesake inheritance patterns. For 10 points each:

[10] Name this Austrian monk who discovered his Laws of Segregation and Independent Assortment by studying pea plants.

ANSWER: Gregor **Mendel** [or **Mendelian** inheritance]

[10] In a monohybrid cross between two of these organisms, the expected phenotypic ratio is 3:1. These organisms have one dominant and one recessive allele.

ANSWER: **heterozygotes** [or **heterozygous**]

[10] In a dihybrid cross between two organisms which are heterozygous for both alleles, what is the probability that the offspring will have a dominant phenotype for both traits? You have 5 seconds.

ANSWER: **9/16**

11. Answer the following about Keynesian economics, for 10 points each:

[10] Keynesians note that menu costs and the money illusion cause these things to be "sticky", causing corporations to preferentially lay off employees than lower these. "Minimum" ones cause a shortage of jobs.

ANSWER: **wages** [or **minimum wages**]

[10] Keynes argued that a decrease in this quantity can lead to a recession. It is plotted against output on a Keynesian cross and, like its microeconomic counterpart, is usually graphed with a negative slope.

ANSWER: **aggregate demand** [prompt on "demand"]

[10] In *The General Theory*, Keynes described the confidence of consumers with this two word phrase. He claimed that fear led to a decrease in spending due to a lack of these things.

ANSWER: **animal spirits**

12. The protagonist of this novel is inspired when he sees lightning splitting an oak tree. For 10 points each:

[10] Name this novel in which Justine is hanged for the alleged murder of William. This novel consists of a frame story told by Robert Walton on his arctic expedition.

ANSWER: **Frankenstein**, or the Modern Prometheus

[10] This woman wrote *Frankenstein* in the "Year Without a Summer" when she and her husband were telling ghost stories.

ANSWER: Mary **Shelley**

[10] Mary Shelley edited a poem published by her husband titled for this fairy. This figure comes in "shape no bigger than an agate stone" while serving as "the fairies' midwife" according to a speech by Mercutio.

ANSWER: Queen **Mab**

13. Edward I's 1290 edict expelled this group of people. For 10 points each:

[10] Name these people. One class of them, the Sephardim, were expelled from Spain by the Alhambra Decree, unless they remained in Spain, where they were called Marranos.

ANSWER: Jews [or Spanish Jews; or equivalents]

[10] The Alhambra Decree was passed by Ferdinand and Isabella in March of this year. More famously, Christopher Columbus "sailed the ocean blue" in this year.

ANSWER: 1492

[10] 1492 also marked the year that this almost 800 year long Crusade finally came to an end. Specifically, it ended with the capture of the Moorish fort of Granada.

ANSWER: Reconquista [or Reconquest]

14. One type of these structures in Rome resembles a shell with three bees resting upon it. For 10 points each:

[10] Name these types of structures exemplified by the one in front of the Barberini Palace dedicated to Triton. The Danube, the Ganges, the Nile, and the Rio de la Plata are personified in one surrounding an obelisk.

ANSWER: fountains [or fontana]

[10] Both the *Triton Fountain* and *Fountain of the Four Rivers* were designed by this Italian Baroque sculptor, best known for depicting the moment before an angel plunges an arrow into the title woman in his *Ecstasy of St. Theresa*.

ANSWER: Gian Lorenzo Bernini

[10] Bernini left his influence on this largest Baroque fountain in Rome, which contains a vase called the *asso di coppe*. Visitors to this fountain usually drop a coin into it to make sure they will visit Rome again.

ANSWER: Trevi Fountain [or *Fontana di Trevi*]

15. Answer the following about consequences of the Second Law of Thermodynamics, for 10 points each:

[10] One way to state the law is that this quantity increases in the universe for every spontaneous process. This quantity symbolized S is a measurement of disorder.

ANSWER: entropy

[10] The Second Law prohibits this quantity for a heat engine from exceeding the limit of a Carnot engine. This quantity is the ratio of useful work to the amount of heat input.

ANSWER: efficiency [prompt on "eta"]

[10] The concept of the "heat death" of the universe from an excess of entropy was proposed by this physicist, who names an isenthalpic process used in refrigeration with James Joule.

ANSWER: William Thomson [or the 1st Baron Kelvin]

16. This god wins one competition when he paints a boat of wood to make it look like it's made of stone. For 10 points each:

[10] Name this god who also soils some lettuce as part of his feud against Set.

ANSWER: Horus

[10] Horus was revenging himself on Set, who had dismembered this father of his. This Egyptian god of the dead and husband of Isis presided over the Nile's flooding.

ANSWER: Osiris

[10] An important symbol of Horus was this icon of his called a Wedjat. Horus attempted to give one of these objects to Osiris to revive him.

ANSWER: his eye [or the Eye of Horus]

17. Going to Antarctica is very rarely a good idea, even if you're a fictional character. For 10 points each:

[10] Captain Nemo and the rest of the crew of the *Nautilus* gets stuck in the Antarctic ice shelf in this novel by Jules Verne.

ANSWER: Twenty Thousand Leagues Under the Sea [or Vingt mille lieues sous les mers]

[10] The protagonist lives in Antarctica for a year before he gets hit by an iceberg and dies in Nikos Kazantzakis' "Modern Sequel" to this ancient work. Most of this work is narrated to King Alcinous and the Phaeacians.

ANSWER: the Odyssey

[10] After nearly everybody dies in a freak suffocation, Joe is forced to kill his only remaining friend, a dog named Oyster, to stay alive in the Antarctic, in this author's novel *The Amazing Adventures of Kavalier and Clay*.

ANSWER: Michael Chabon



18. Giant fruit are abundant in this artistic work. For 10 points each:

[10] Name this triptych which when closed depicts the creation of the world. When opened, this work depicts bloodthirsty birds eating naked humans in the title location.

ANSWER: The **Garden of Earthly Delights**

[10] *The Garden of Earthly Delights* is the best known piece by this Dutch artist who depicted a nun playing a lute in his *Ship of Fools*.

ANSWER: Hieronymus **Bosch**

[10] In Bosch's triptych of this title, men and women ride flying fish above the title figure. In Dali's depiction of this scene, the title figure holds a cross up to a white horse with absurdly skinny legs.

ANSWER: The **Temptation of St. Anthony** [prompt on partial answers; accept word forms]

19. Answer the following about leisure in ancient Rome, for 10 points each:

[10] Citizens would take in spectacles like chariot racing and this activity for fun. This activity, which took place in Rome at the Colosseum, featured slaves and prisoners-of-war fighting to the death with sword and shield.

ANSWER: **gladiatorial** games [accepts any answers with "gladiator" given]

[10] This was the main location of chariot racing in Rome. Situated between the Aventine and Palatine Hills, this venue was damaged by a fire in 31 BC.

ANSWER: **Circus Maximus** [or "**Great Circus**" and other translations]

[10] When Romans exercised it was usually at the *palestra*, the exercise ground at these places. These places, which included rooms like the *frigidarium* and *caldarium*, were known in Latin as *thermae*.

ANSWER: Roman **baths**

20. The Born-Oppenheimer approximation is useful in solving the Schrodinger equation for these orbitals. For 10 points each:

[10] Name these orbitals formed from the linear combination of atomic orbitals. They include bonding and antibonding orbitals and result in complete electron delocalization over a compound.

ANSWER: **molecular** orbitals [or **MOs**]

[10] Molecular orbital theory does a great job in predicting the paramagnetic behavior of this element, which exists in a triplet state in its ground state.

ANSWER: **oxygen** [or **O<sub>2</sub>**]

[10] This is the number of electrons which can exist in a given molecular orbital. It's also the number of electrons which exist in an atomic orbital, and the number of electrons involved in a basic covalent single bond.

ANSWER: **two**

### **The Round is Now Over**

21. Under the leadership of Nurhachi, these people were split into different groups based on yellow, red, white, or blue banners. For 10 points each:

[10] Name these people formed from the earlier Jurchens who conquered the majority of China in the 17th century after invading from the northeast. The Empress Dowager Cixi was descended from these people.

ANSWER: **Manchus** [or **Man**]

[10] Around 1680, the Manchus formed this last imperial dynasty after taking over the Ming. It ruled until the boy emperor, Pu Yi, was forced to abdicate.

ANSWER: **Qing** Dynasty

[10] Pu Yi was forced to abdicate by this man, who later set up a provisional government as the second president of the Republic of China after Sun Yat-sen. In 1915, he briefly ruled as the Hongxian Emperor.

ANSWER: **Yuan Shikai** [accept either; or **Weiting**]