Round 4

First Half

(Tossup 1) The second, "Andante molto mosso" movement of this man's sixth symphony depicts a "Scene by the Brook." The last symphony by this man includes a setting of the Friedrich Schiller poem (*) "Ode to Joy" in its last movement, while another of this composer's symphonies opens with a pattern described by Anton Schindler as "fate knocking at the door." For ten points, name this composer of the *Pastoral* and *Choral* symphonies, whose fifth symphony opens with a famous short-short-long motif.

ANSWER: Ludwig van Beethoven

(Bonus 1) The art in this chapel includes nine scenes from Genesis, including a depiction of a man in a pink robe pushing aside a shadow and a painting of a nude man touching his finger to the finger of God. For ten points each,

[Part A] Name this chapel in the Vatican, where Separation of Light from Darkness and The Creation of Adam are painted on the ceiling.

ANSWER: Sistine Chapel

[Part B] This artist painted the ceiling of the Sistine Chapel, and painted unflattering images of his critics on the chapel's altar wall.

ANSWER: Michelangelo Buonaroti

[Part C] Michelangelo created this large painting on the altar wall of the Sistine Chapel. This painting includes a probable self-portrait in the flayed skin of Saint Bartholomew.

ANSWER: The Last Judgement

(Tossup 2) Ray Bradbury wrote a sequel to this story in which William Stendahl murders upper class book burners on a robotic building created to "cause an 'iciness, a sickening of the heart, a dreariness of thought." This story's narrator hears a clang like a shield falling from a wall while reading about (*) Ethelred battling a dragon in "The Mad Trist." After Madeline seems to die in this story, the sickly Roderick dies as his home falls apart. For ten points, name this short story about the destruction of the title building, written by Edgar Allan Poe.

ANSWER: The Fall of the House of Usher

(Bonus 2) In this novel, Edgar and Isabella's family dog catches a young woman, who is forced to stay with them while she recovers. For ten points each,

[Part A] Name this novel by Emily Brontë, in which Heathcliff's hopes are ruined when his best friend marries Edgar.

ANSWER: Wuthering Heights

[Part B] This woman is Heathcliff's childhood friend, who marries Edgar despite her youthful obsession with marrying Heathcliff.

ANSWER: <u>Catherine</u> Earnshaw (accept, but do not otherwise reveal, <u>Catherine</u> Linton; prompt on "Cathy," and accept any further information that indicates it's the elder of the two)

[Part C] This is the surname of Catherine's husband and the given name of Isabella's son, who is given this name out of spite for Heathcliff.

ANSWER: Linton (accept Edgar Linton; accept Linton Heathcliff)

(Tossup 3) During this battle, William II, the Prince of Orange, was shot off his horse, an act commemorated with the Lion's Mound. Gebhard von Blucher led a Prussian army at this battle and succeeded in routing Marshal Ney. The (*) Hundred Days campaign, which started after one man returned from Elba, was ended by this battle. The Duke of Wellington won, for ten points, what 1815 battle, the final defeat of Napoleon?

ANSWER: Battle of Waterloo

(Bonus 3) For ten points each, name the following Indian politicians named Gandhi.

[Part A] This man led a salt march in 1930 and advocated nonviolence in his struggle for Indian independence.

ANSWER: Mahatma (or Mohandas) Karamchand Gandhi

[Part B] This female Prime Minister with the surname Gandhi was the daughter of Jawaharlal Nehru. Her Sikh bodyguards assassinated her after she sent soldiers into the Golden Temple.

ANSWER: Indira Gandhi

[Part C] Indira's son and successor as Prime Minister was this man, who was personally implicated in the Bofors scandal and assassinated in 1991.

ANSWER: Rajiv Gandhi

(Tossup 4) A thick band of these objects predictably occurs near the Gulf of Carpentaria and is known as the "Morning Glory." Nitric and sulfuric acid buildup in the nacreous type of these objects is harmful to the ozone layer. (*) Contrails are a man-made variety of these structures. These phenomena form when air is cooled to below its dew point. For ten points, name these atmospheric phenomena that include cirrus, stratus, and cumulonimbus varieties and form from condensed water vapor.

ANSWER: clouds

(Bonus 4) Charles Darwin wrote a text "on the Origin of" these entities. For ten points each,

[Part A] Name these groups that are created when two populations evolve to a point when they can no longer interbreed. They are the lowest major taxonomic level after genus.

ANSWER: species

[Part B] Stephen J. Gould proposed this theory which states that speciation happens in rapid bursts interspersed between periods of no change.

ANSWER: punctuated equilibrium

[Part C] According to the competitive exclusion principle, two species cannot occupy this entity at the same time. This ecological term is the specific role an organism plays in its environment.

ANSWER: Ecological **niche**

(Tossup 5) This goddess and her mother were celebrated in the Thesmophoria festival. This goddess was also called Kore, the maiden, and was a central figure in the (*) Eleusinian mysteries. This goddess was forced to temporarily separate from her mother after she consumed pomegranate seeds in the underworld. For ten points, name this goddess, the daughter of Demeter who was abducted and became the wife of Hades.

ANSWER: Persephone

(Bonus 5) In the Orthodox Church, the time period from this holiday to the following Thomas Sunday is called Bright Week. For ten points each,

[Part A] Name this holiday that commemorates the resurrection of Jesus after his death.

ANSWER: Easter Sunday (accept Pascha)

[Part B] These flowers traditionally decorate churches at Easter. In the Book of Luke, Jesus says of these flowers that "they toil not, they spin not; and yet I say unto you, that Solomon in all his glory was not arrayed like" these flowers.

ANSWER: Easter lilies

[Part C] Lilies often remain in churches throughout Eastertide, which concludes with this holiday celebrating a meeting of the disciples after the ascension of Jesus, during which they were filled with the holy spirit and spoke in tongues.

ANSWER: Pentecost

(Tossup 6) Jack Layton led this country's New Democratic Party during the rule of Stephen Harper's government. A mayor in this country was criticized after Gawker reported on a video showing that mayor (*) smoking crack cocaine; that recently deceased former mayor was Rob Ford. Sesquicentennial celebrations were recently held in this country that is governed from Parliament Hill. For ten points, name this country currently led by Justin Trudeau.

ANSWER: Canada

(Bonus 6) Early European visitors to this region often entered it via the Columbia River Gorge. For ten points each,

[Part A] Name this fertile river valley in the Pacific Northwest, the terminus of a famous 19th century wagon trail.

ANSWER: Willamette (River) Valley

[Part B] The Willamette Valley is found in this US state, where it includes the cities of Salem and Portland.

ANSWER: Oregon (accept Oregon Trail)

[Part C] This mountain range, whose tallest peak is Mount Rainier, lies east of the Willamette Valley.

ANSWER: Cascade Mountains (accept Cascades)

(Tossup 7) The average of this quantity for complicated systems can be found using the Virial theorem. Three-halves times Boltzmann's constant times temperature is equal to the average value of this quantity for a gas particle. In classical mechanics, this quantity can be calculated using (*) momentum squared over two times the mass, but is more commonly written as one-half mass times velocity squared. For ten points, name this type of energy, contrasted with potential energy, which is related to motion.

ANSWER: kinetic energy (accept kinetic after "energy" is read)

(Bonus 7) Matter can exist in different phases depending on the temperature and pressure. For ten points each,

[Part A] Phases of matter are caused by particles associating with each other through this type of force, unlike a molecular bond, which is contained within one molecule.

ANSWER: intermolecular forces

[Part B] This phase of matter has very weak intermolecular forces, allowing the particles to travel in straight lines and fill up the entire volume of a container.

ANSWER: gas

[Part C] Heating a gas or subjecting it to a strong electromagnetic field creates this phase with free-floating atomic nuclei, ions, and electrons.

ANSWER: plasma

(Tossup 8) This empire was led by Abu Bakr II, who disappeared while leading an expedition in the Atlantic Ocean. The founder of this empire, Sundiata Keita, won the Battle of Kirina. While on a pilgrimage to (*) Mecca, a leader of this empire gave away massive amounts of gold. In the 19th century, the former capital of this Empire became legendary in Europe for its inaccessibility. Mansa Musa led, for ten points, what West African empire that was ruled from Timbuktu?

ANSWER: Malian Empire

(Bonus 8) This man lowered tariff rates by signing the Underwood Tariff into law. For ten points each,

[Part A] Name this President of the United States who limited child labor with the Keating-Owen Act.

ANSWER: Woodrow Wilson

[Part B] During the Wilson administration, the 17th amendment made these political positions elected instead of appointed. In Congress, there are only 100 of these positions has opposed to 435 Representatives.

ANSWER: United States Senators

[Part C] Wilson also signed a 1913 act that created this central banking system, which is now headed by Jerome Powell.

ANSWER: The Federal Reserve System

Sixty-Second Rounds

The categories are ...

- 1. The Adventures of Huckleberry Finn
- 2. Vice Presidents Who Became President
- 3. Systems of the Human Body

THE ADVENTURES OF HUCKLEBERRY FINN

In relation to the novel The Adventures of Huckleberry Finn, who or what is...

(1) The novel's author?

ANSWER: Mark **Twain** (accept Samuel Langhorne **Clemens**)

(2) The river that Huck and Jim raft down to escape Huck's father and Jim's slavery?

ANSWER: Mississippi River

(3) Huck's home state, where the fictional town of St Petersburg is modeled on the real town of Hannibal?

ANSWER: Missouri

(4) The thief who, along with the Dauphin, use Huck and Jim to perform the play "The Royal Nonesuch?"

ANSWER: the **Duke**

(5) Huck's guardian in St Petersburg, whose attempts to "sivilize" Huck fail?

ANSWER: Widow **Douglas**

(6) The surname of Sarah and Silas, Tom Sawyer's aunt and uncle, who mistake Huck for their nephew?

ANSWER: Sarah and Silas Phelps

VICE PRESIDENTS WHO BECAME PRESIDENT

Some vice presidents gain the office in their own election; others rise to the office after the untimely end of their superior's term. In either case, name the vice president who...

(1) Was the first to do so, becoming the second President?

ANSWER: John Adams (prompt on Adams; do not accept John Quincy Adams)

(2) Became president after John F. Kennedy was assassinated in Texas and enacted the Great Society programs?

ANSWER: Lyndon Baines Johnson (accept LBJ; prompt on Johnson)

(3) Served as Eisenhower's vice president after giving the Checkers speech?

ANSWER: Richard Milhous Nixon

(4) Won the election of 1988 against Mike Dukakis to become president?

ANSWER: George Herbert Walker Bush (prompt on (George) Bush; do not accept George W. Bush)

(5) Distributed buttons that asked Americans to Whip Inflation Now?

ANSWER: Gerald Rudolph Ford Jr.

(6) Signed the Pendleton Civil Service Reform Act into law?

ANSWER: Chester Alan Arthur

Systems of the Human Body

Name the...

(1) System that includes 206 bones.

ANSWER: skeletal system (accept word forms like skeleton)

(2) System that includes the small and large intestines to help absorb nutrients.

ANSWER: digestive system (accept word forms like digestion)

(3) System that includes the pituitary and adrenal glands and is involved in the secretion of hormones.

ANSWER: endocrine system

(4) System that involves the trachea.

ANSWER: <u>respiratory</u> system (accept word forms like <u>respiration</u>; prompt on breathing and other more general terms)

(5) System that includes the spleen, which filters the blood, and numerous "nodes" that can become swollen.

ANSWER: lymphatic system (accept lymph nodes)

(6) Longest nerve in the body, running from the lower back to the foot. It shares its name with the common medical condition of nerve pain along it.

ANSWER: Sciatic nerve (accept sciatica)

Second Half

(Tossup 9) After a knocking at the gate in this work, a drunken porter welcomes Lennox and a man who was "from his mother's womb / untimely ripped." In this play, a queen sleepwalks and cries (*) "Out, out, damned spot!" while an army marches from Birnam Wood to Dunsinane. The title character orders the death of Banquo after receiving a prophecy from three witches about being king. For ten points, name this Shakespeare play about a murderous Scottish lord.

ANSWER: The Tragedy of Macbeth

(Bonus 9) This poem declares "I bequeath myself to the dirt" and instructs "look for me under your boot-soles." For ten points each,

[Part A] Name this poem, whose speaker compares himself to a spotted hawk by saying "I sound my barbaric yawp over the roofs of the world."

ANSWER: Song of Myself

[Part B] "Song of Myself" appears in this often-revised poetry collection that also includes "Crossing Brooklyn Ferry" and "I Sing the Body Electric."

ANSWER: Leaves of Grass

[Part C] This American poet wrote poems like "When Lilacs Last in the Dooryard Bloom'd" and "O Captain! My Captain!" for Abraham Lincoln, and included them in his *Leaves of Grass*.

ANSWER: Walter "Walt" Whitman

(Tossup 10) This nutrient is required for the conversion of dopamine to norepinephrine. This nutrient is required so that a triple helix structure can be formed from the subunits of collagen. Linus (*) Pauling was a significant proponent of consuming large doses of this nutrient to help prevent colds. Lack of this vitamin causes a disease highlighted by wounds that do not heal and bleeding gums. For ten points, name this vitamin whose deficiency causes scurvy and found in abundance in citrus fruit.

ANSWER: vitamin C (accept ascorbic acid)

(Bonus 10) These events occur when the Earth passes through a debris field left over by the remnants of passing comets or asteroids. For ten points each,

[Part A] Name these events, such as the Orionids, in which many shooting stars can be seen in the sky over the period of several nights.

ANSWER: meteor showers

[Part B] The Orionids come from the debris trail of this object. This object orbits the sun about every 76 years and is named for the astronomer that described its orbit in 1705.

ANSWER: Halley's Comet

[Part C] A mid-November meteor shower passes through this zodiac constellation and is associated with the debris field of Comet Tempel-Tuttle. The brightest star in this constellation is Regulus.

ANSWER: Leo

(Tossup 11) The unusual structure of a Prague building designed by this architect inspired its nickname, the "Dancing House." A monorail runs through another building by this architect, Seattle's Museum of Pop Culture. The L.A. (*) Philharmonic often performs in a sheet-metal building designed by this architect, the Walt Disney Concert Hall. For ten points, name this modern architect who designed the Guggenheim Museum in Bilbao.

ANSWER: Frank Owen Gehry (accept Ephraim Owen Goldberg or Frank Owen Goldberg)

(Bonus 11) Answer the following about accessories used when playing different musical instruments, for ten points each:

[Part A] When they aren't plucking the strings, string musicians use these long sticks with hair secured by a frog to play their instruments.

ANSWER: bow

[Part B] This small object, often wooden, is used to create vibrations for woodwind instruments. Clarinets and saxophones use the "single" variety, while the oboe and bassoon use the "double" variety.

ANSWER: reed

[Part C] The Italian phrase "con sordino" is seen when this accessory is used to create a softer sound. A variety of these objects are used for brass instruments and include the Harmon, bucket, and plunger.

ANSWER: mute

(Tossup 12) A river named for this color runs between Winnipeg in Canada and Fargo in North Dakota. The Choctaw word for this color of people is Oklahoma, while the name (*) "Colorado" references this color of the Colorado River. The second largest city in Louisiana, which serves as its capital, is named for the French word for this color. For ten points, name this color word that appears in another name for California's sequoia trees.

ANSWER: red (accept Red River; accept Baton Rouge after "Louisiana" is read)

(Bonus 12) The last clause of Article 1, Section 7 of the Constitution outlines this process, which can be overridden by a two-thirds vote in both the Senate and the House. For ten points each,

[Part A] Name this political maneuver in which the President directly expresses his disapproval of a passed bill.

ANSWER: veto

[Part B] A President doesn't necessarily have to sign or veto a passed bill; if Congress isn't in session ten days after the President receives a bill, he can ignore it, creating this type of veto.

ANSWER: pocket veto

[Part C] For a little less than two years in the mid 90s, President Clinton had this form of veto power, which allowed him to veto portions of a passed bill while signing the rest of it into law.

ANSWER: line-item veto

(Tossup 13) In this novel, Madame Stahl's extreme piety is doubted by Shcherbatsky, the father of Natalie and Kitty. Stiva's affair with a governess is discovered by Dolly, prompting the observation that "every unhappy family is unhappy in its own way." (*) Konstantin Levin marries Kitty in this novel, whose title character is shocked by the death of Frou-Frou, the horse of her lover, Count Vronsky. For ten points, name this novel in which the title character throws herself in front of a train a work by Leo Tolstoy.

ANSWER: Anna Karenina

(Bonus 13) This Greek playwright wrote about Heracles and Dionysus traveling to Hades to recover another great playwrights of ancient Athens. For ten points each,

[Part A] Name this playwright of The Frogs, The Trojans, and The Clouds.

ANSWER: Aristophanes

[Part B] Aristophanes had several top-three finishes in this category at the City Dionysia festival in Athens. This genre of play was added to the Dionysia to complement the traditional awards in tragedy.

ANSWER: comedy

[Part C] In this comedy by Aristophanes, Pisthetaerus and Euelpides convince the title creatures that they deserve to be gods and establish the sky-city Cloud-cuckoo-land.

ANSWER: The **Birds**

(Tossup 14) These things can be known as "pseudo" if they are determined by a starting seed value. Monte Carlo simulators operate using large batches of these things, which were once (*) taken from large tables in books and are now often generated from atmospheric noise. Classroom experiments may use rolling dice to generate, for ten points, what type of number that cannot be reliably predicted?

ANSWER: (pseudo)random numbers ("number" not needed after mentioned)

(Bonus 14) For ten points each, answer the following about imaginary numbers.

[Part A] The imaginary number i is equal to the square root of this integer.

ANSWER: **negative 1** (do not prompt on 1)

[Part B] Find the fully simplified value of i cubed times 3i.

ANSWER: 3

[Part C] If i is raised to the power of an integer n, the result will be a real number if and only if n is this type of number.

ANSWER: even number (accept even integer; do not prompt on integer or whole number)

(Tossup 15) At this battle, Thaddeus Bowman warned John Parker of approaching troops. The defending side in this battle gathered at the Buckman Tavern. A British column in this battle was led by William Sutherland, who ordered the (*) colonial militia to disarm. The "shot heard 'round the world" occurred at, for ten points, what opening battle of the American Revolution that preceded fighting at Concord?

ANSWER: Battle of Lexington (prompt on Battles of Lexington and Concord if both are given)

(Bonus 15) For ten points each, answer the following about the lead-up to the French surrender in World War II.

[Part A] In Operation Dynamo, the British Expeditionary force evacuated 400 thousand soldiers from this coastal city.

ANSWER: Dunkirk

[Part B] The Dunkirk evacuation occurred after the Nazis invaded through this country, where the battles of Ypres took place near its capital of Brussels.

ANSWER: Belgium

[Part C] In June 1940, this hero of the World War I Battle of Verdun succeeded Paul Reynaud as Prime Minister and asked Germany for armistice terms.

ANSWER: (Henri-)Philippe Petain

(Tossup 16) This man was named Zaphenath-Paneah by his leader, and married Asenath during the preparations for a famine. This man interpreted the budding of three branches of grapes and birds scavenging bread out of a basket on a baker's head. This interpreter of (*) dreams concealed a silver cup so that he could accuse his eleven brothers of theft while he distributed food during a famine in Egypt. For ten points, name this son of Jacob and Rachel, who was sold into slavery because of his beautiful coat.

ANSWER: Joseph (accept Yoseph; accept Yusuf)

(Bonus 16) Because of his physical deformities, this deity was thrown off Mount Olympus and landed on Lemnos, which became a land sacred to him. For ten points each,

[Part A] Name this Greek god of the forge and metalworking, whose wife was Aphrodite.

ANSWER: Hephaestus

[Part B] While on his way to Lemnos, Hephaestus learned from this god that Aphrodite was cheating on him. In another myth, this god's son, Phaëthon [FAY-it-on], lost control of this god's chariot and burned up a stretch of earth.

ANSWER: Helios

[Part C] Hephaestus caught Aphrodite cheating on him with this god, and captured the pair in a net. Hesiod considered Aphrodite to be the mother of this god's sons, Deimos and Phobos, who accompanied him into battle.

ANSWER: Ares

Tiebreakers

(Tossup 17) This man said "Here I stand; I can do no other" while defending himself at the Diet of Worms. This man opposed the work of Johann Tetzel by preaching "justification by (*) faith alone." This theologian attacked indulgences in a work he nailed to the door of a Wittenberg church. The Protestant Reformation was started by, for ten points, what German priest who wrote the 95 Theses and names a prominent branch of Christianity?

ANSWER: Martin Luther

(Bonus 17) This man had a falling out with a fellow revolutionary at the 1822 Guayaquil Conference in Ecuador. For ten points each,

[Part A] Name this South American liberator, who emerged victorious at the Battles of Carabobo and Ayacucho, freeing Venezuela and Peru.

ANSWER: Simón Bolívar

[Part B] Bolívar freed Venezuela and Peru from this European colonizer, which was weakened during the wars of South American independence as a result of the Napoleonic Wars.

ANSWER: Spain

[Part C] Bolívar became the first president of this massive South American state that encompassed Venezuela, Ecuador, Panama, and northern Peru, among other territories.

ANSWER: Gran Colombia (prompt on Columbia)