Toss-ups

1. At the right of this painting, a nun appears conversing with a bodyguard, while a figure in the foreground harasses a resting mastiff. On the back wall in this painting, scenes of Ovid's *Metamorphoses* hang above a mirror that reflects the artist's patrons. A man standing on two different steps appears in a doorway on the back wall, while the artist appears dressed in black with a red cross on the left of this painting. Two dwarves appear to the right of the central figure. For 10 points, name this painting that depicts the *infante* Maria Theresa attended by servants, a work by Diego Velazquez.
ANSWER: *__Las Meninas__* [accept "*__The Maids of Honor__*"]

2. This man wrote a novel whose title character boards the steamboat *Fidele* and attempts to deceive its passengers while sailing the Mississippi. The unnamed narrator of a short story by this author employs Nippers and Turkey to copy legal documents. A work by him includes Aunt Charity, who gives a copy of Watts to the cast of characters. In that book, the turban-wearing Fedallah makes eerie predictions. Bildad and Peleg are two Quaker characters in one of this man's works, whose protagonist demands "call me Ishmael." For 10 points, name this man who wrote of Queequeg and Captain Ahab in *Moby Dick*.
ANSWER: Herman **Melville**

3. They're not helminths, but members of this phylum undergo strobilation to produce mature adults with a fully developed coelenteron surrounded by a gastrodermis. Nectosomes are used as flotation devices by members of this phylum's order Siphonophorae, which includes the Portuguese man-o'war. Some members of this phylum alternate between medusa and polyp forms, and many use their nematocysts to sting. For 10 points, name this phylum of radially symmetric organisms like corals, hydras, and jellyfish.
ANSWER: **Cnidaria** [accept "**cnidarians**"]

4. The centum-satem distinction separates some groups of these entities, which can be divided by isoglosses. The Kurgan hypothesis concerns the spread of a group defined by one of these entities, which are called "isolates" when they have no relation to others. Sprachbunds are geographical groups of these entities, "constructed" examples of which include Dothraki and Quenya. Human use of these entities is governed by Broca's and Wernicke's Areas, and their families include Altaic and Indo-European. For 10 points, name these entities that often have writing systems and facilitate spoken communication.
ANSWER: **language**s [accept "Indo-European **languages**" before "isolates"]

5. Despite never having set foot in Sweden, this man was the first American minister there, and he appeared before the Privy Council for his role in the Hutchinson Letters Affair. He wrote a satire against slavery titled "Sidi Mehemet Ibrahim on the Slave Trade", and published a cartoon after the Albany Congress that depicted a dismembered snake above the words "Join, or Die." This man signed some letters "Silence Dogood," and became popular in France as Ambassador there during the American Revolution. For 10 points, name this Founding Father and inventor who published *Poor Richard's Almanack*.
ANSWER: Benjamin **Franklin**

6. One Supreme Court case cited this constitutional amendment in order to strike down a California law limiting welfare benefits for recently-arrived residents. In another case, this amendment was invoked to condemn differing standards of vote tabulation in the state of Florida. Former Confederate states were required to ratify this amendment in order to secure re-admittance to the Union, and it contains provisions for incorporating the Bill of Rights. For 10 points, name this Amendment referenced in *Saenz v. Roe* and *Bush v. Gore*, which contains clauses that guarantee due process and equal protection.
ANSWER: **Fourteenth** Amendment to the Constitution of the United States

7. One form of this process, sometimes named for Richard Feynman, requires the existence of a Lebesgue measure. Performing one type of this process on the function $1/z$ gives 2 pi times i. In addition to that "contour" form of this process, it also comes in a "line" variety. Fubini's theorem allows for the triple and double forms of this operation to be performed in any order. This operation can be done "by parts." and is approximated using Riemann sums. For 10 points, name this operation that finds the area under a curve, the opposite of a derivative.
ANSWER: **integration** [accept word forms like "**integral**"]

8. During this period, a policy of "alternative attendance" mandated that noblemen leave their families as hostages in the capital city. Sailor William Adams became the advisor of this period's first ruler. Because of the Shimbara rebellion, this period's government increased its proscription of Christians. The Battle of Sekigahara enabled Ieyasu to defeat Toyotomi Hideyoshi's successors, beginning this era that saw the rule of Yoshinobu and the arrival of Matthew Perry in Japan. For 10 points, name this period that followed the Sengoku period and preceded the Meiji restoration.
ANSWER: **Tokugawa** shogunate [accept "**Tokugawa** period" or "**Edo** period" and equivalents for "period", or "**Tokugawa** bakufu"]

9. The protagonist of this work has affairs with General Tufto and Lord Steyne, who appoints her husband as governor of Coventry Island. The elder Sir Pitt receives a controversial inheritance in this work, whose protagonist bankrupts Briggs and Raggles. One character in this work is compared to Clytemnestra, having played her in charades, when Jos dies mysteriously in Aix-la-Chapelle. His life insurance money goes to that wife of Rawdon, who throws away a dictionary she received at Miss Pinkerton's Academy for Girls. For 10 points, name this novel that features Amelia Sedley and Becky Sharp, a work by William Thackeray.
ANSWER: *Vanity Fair: A Novel without a Hero*

10. This man's son Rāhula asked him for his inheritance and was named for being a "fetter" that bound this man to his wife Yasodharā, who emulated his behavior when he left with Kanthaka and Channa. This man refused to answer fourteen questions but taught that the five Skandhas do not exist. This leader of the first bhikkus delivered his first teachings in the Deer Park of Sarnath, and resisted the temptations of the demon Mara before attaining enlightenment under the Bodhi tree. For 10 points, name this creator of the Four Noble Truths and the Eightfold Path.
ANSWER: Gautama **Buddha** [accept "Siddhartha **Gautama**"]

11. This man was commissioned by the Second Spanish Republic to create a fountain of mercury, a commemoration of the siege of Almadén. In his namesake cirque displayed at the Whitney Museum, he depicted sword eaters and lion tamers using wire and wood. He created the sculpture ".125" for the JFK airport and "La Spirale" for UNESCO. One of this man's works features seven black fins suspended from wires connected to a yellow object. For 10 points, name this American artist best known for his kinetic art, including mobiles like "Lobster Trap and Fish Tail."
ANSWER: Alexander "Sandy" **Calder**

12. This quantity appears divided by the speed of light in the first column and first row of an antisymmetric rank-2 tensor labeled "F." The cross product of this quantity with the magnetic field gives the Poynting vector, and the refractive index of materials change due to the presence of this entity in the Kerr effect. This quantity is the gradient of the electric potential, and it is equal to the force on a point divided by its charge. For 10 points, name this quantity measured in newtons per coulomb and symbolized E.
ANSWER: **electric field** [prompt on "**E**" before mentioned]

13. Neith's decision gave this god the foreign goddesses Anat and Astarte as concubines. The Hyksos king Apepi worshipped this god at Avaris, resulting in a ban on hippopotamus hunting. This husband of Nephthys unknowingly ate inseminated lettuce, and tried to race his nephew in a stone boat, but the boat sank and he lost. This god committed fratricide by tearing his brother into fourteen pieces and scattering them across Egypt. For 10 points, name this brother of Osiris and Isis, the Egyptian god of chaos and the desert.
ANSWER: **Set** [accept "**Seth**", "**Setekh**", "**Sut**", "**Sutekh**", or "**Sety**"]

14. A work by this author features Marina, who tells the title character "Hour by hour danger becomes more dangerous." In that same work, Varlaam the wandering friar asks a character "What makes you so fond of Lithuania?" This author wrote a novel in which Pyotr is lost in a blizzard, and afterward gives a coat to the man who saves him. That novel is *The Captain's Daughter*. This author wrote a poem that describes a place "where wretched Finns for shelter crowded." In that poem, Evgeny goes insane after the death of his beloved Parasha. For 10 points, name this Russian author who penned "The Bronze Horseman" and *Eugene Onegin*.
ANSWER: Alexander Sergeyevich **Pushkin**

15. This city purchased the island of Corfu from King Ladislaus of Naples. Vettor Pisani won a great victory for this city at the Battle of Chioggia during this city's war against Genoa. This city was the main opponent of the League of Cambrai. Four bronze horses originally from the Hippodrome were brought to this city, where they were installed in this city's Basilica of St. Mark. The Fourth Crusade sacked Constantinople after being co-opted by this city's Doge Enrico Dandolo. For 10 points, name this Serene Republic located on the Adriatic Sea.
ANSWER: **Venice**

16. In the fifth movement of this work, a soprano solo sings "You now have sorrow, but I will see you again" before the chorus enters with "I will comfort you". This work's second movement begins with two-note slurs in the bassoons and triplets on the timpani before the chorus proclaims "Then all flesh is as the grass", and its first movement notably lacks violins. This work opens with Beatitudes like "Blessed are they that bear sorrow", and makes no reference to Jesus despite its genre. For 10 points, name this choral work with text from the Luther Bible, composed by Johannes Brahms.
ANSWER: *A **German Requiem*** [accept "*Ein **Deutsches Requiem***"]

17. This story's protagonist observes "several volumes of the Lost Encyclopedia" next to a *famille rose* vase, and replies that "chess" is the only word prohibited in a riddle about chess. A "shapeless mass of contradictory rough drafts" was written Ts'ui Pên, an ancestor of this story's protagonist, and left "to the various futures" in a letter. The protagonist is arrested for shooting Dr. Stephen Albert to indicate to the Chief where his German employers should attack. For 10 points, name this story about the German spy Dr. Yu Tsun, a work by Jorge Luis Borges.
ANSWER: "The **Garden of Forking Paths**" [accept "El **Jardín de senderos que se bifurcan**"]

18. During one of these events, Isaac Newton proposed a problem whose solution turned out to be the imaginary number. In one of these conflicts, Thomas Edison admitted to tricking his rival out of $50,000, and in a large one, Joseph Stalin called himself the "pride of Lenin." Bill Gates claimed he gave away Steve Jobs' net worth to AIDS research during one of these events. In another one of these, Adolf Hitler offered a trip on one of his trains to Darth Vader. For 10 points, name these conflicts on YouTube, whose participants are usually historical.
ANSWER: **Epic Rap Battles** of History [prompt on "**rap battles**"]

19. A 1966 coup in this country resulted in a 194-day regime whose president issued the Constitution Suspension and Amendment Decree. That president's successor helped draft the Aburi Accord, whose failure led to a secessionist crisis during which Benjamin Adekunle led forces from this country against rebels from Biafra in Operation Tiger Claw. This country's 33-year military rule was ended by the election of Olusegun Obasanjo, and Goodluck Jonathan is its current president. For 10 points, name this West African country where Boko Haram is most active in districts far from Abuja and Lagos.
ANSWER: Federal Republic of **Nigeria**

20. Along with a reactive gas, excimer lasers use this class of elements for high-precision imaging. Van der Waals forces between atoms of elements in this group are isotropic, and the Lennard-Jones potential is most accurate when modeling interactions between atoms of this group. The only element to exhibit superfluidity is in this group, and these elements have the highest ionization energies due to their completed valence shells. For 10 points, name this group of highly unreactive elements that includes neon, radon and xenon.
ANSWER: **noble gases** [accept "**Group 18**"]

TB. This book begins with a genealogy of Jesus starting with Abraham, and traces his descent through Solomon. This book's version of the Lord's Prayer includes a request to "deliver us from evil," and this gospel quotes Jesus as saying "blessed are the peacemakers" and "blessed are the meek" among the Beatitudes offered during the Sermon on the Mount. This gospel and the Gospel of Luke share passages that may have come from the hypothetical Q source. For 10 points, name this first of the Synoptic Gospels.
ANSWER: Gospel of **Matthew**

Bonuses

1. A beam of atoms of this element was sent through an inhomogeneous magnetic field in the Stern-Gerlach experiment. For 10 points each:
[10] Name this highly reflective element, which has the highest conductivity of all metals.
ANSWER: **silver** [accept "**Ag**"]
[10] The Stern-Gerlach experiment discovered the existence of this intrinsic property of particles. This property for a fermion is equal to one half, while for a boson it equals one.
ANSWER: **spin**
[10] This set of three two-by-two matrices is used to describe spin. They all contain either 1, negative 1, 0, i, or negative i.
ANSWER: **Pauli** matrices

2. This composer's madrigals are less notable than his opera about a figure who rescues Eurydice. For 10 points each:
[10] Name this composer from Cremona of one of the earliest surviving operas.
ANSWER: Claudio Giovanni Antonio **Monteverdi**
[10] Monteverdi's famous opera was about this musician from Greek mythology, who leads a can-can in the underworld in an operetta by Jacques Offenbach.
ANSWER: **Orpheus**
[10] *Orpheus in the Underworld* is a parody of this German classical composer's *Orfeo ed Euridice*. This man also wrote the operas *Iphigenia in Aulis* and the failed *Echo and Narcissus*.
ANSWER: Christoph Willibald von **Gluck**

3. For 10 points each, name some Hufflepuffs.
[10] This former boyfriend of Cho Chang was killed by Wormtail on Voldemort's orders. His "echo" requested that Harry bring his body back to his parents.
ANSWER: **Cedric** **Diggory** [accept either]
[10] The mother of this pigtail-wearing Hufflepuff was murdered in her sixth year. She married Neville Longbottom and became landlady of the Leaky Cauldron, according to J.K. Rowling.
ANSWER: **Hannah** **Abbott** [accept either]
[10] This friend of Ernie Macmillan was originally slated for Eton. He was petrified alongside Nearly Headless Nick after Harry appeared to encourage a snake to attack him in Duelling Club.
ANSWER: **Justin** **Finch-Fletchley** [accept either]

4. The euphemism *harijan*, or "Children of God", referred to these people but is now deprecated. For 10 points each:
[10] Name these people excluded from a certain system, for which reason they have traditionally been butchers and tanners.
ANSWER: **Dalit**s [accept "**Untouchable**s"]
[10] The Dalits are excluded from this system in India, which organizes people into classes like Brahmins and Shudras by birth.
ANSWER: **caste** system
[10] The bone rank caste system was used in an ancient kingdom in this region. Its top "sacred" rank died out, so the next-highest "true" rank became the rulers of Silla.
ANSWER: **Korea**n Peninsula

5. One character in this short story likes to "take a dig at the Germans whenever there was a chance." For 10 points each:
[10] Name this short story in which Akaky Akakievitch saves money for the title garment.
ANSWER: "**The Overcoat**" [accept "**The Cloak**" or "**Shinel'**"]
[10] This Russian author wrote "The Overcoat" as well as the novel *Dead Souls*, in which Chichikov collects the rights to deceased serfs.
ANSWER: Nikolai **Gogol**
[10] This Gogol short story is about Major Kovalyov, who writes to Madam Podtochina Grigorievna, accusing her of stealing the title body part.
ANSWER: "**The Nose**" [accept "**Nos**"]

6. The van 't Hoff factor is often used in calculations concerning these properties. For 10 points each:
[10] Name these properties that depend only on the number of solute particles in a solution.
ANSWER: **colligative** properties
[10] This colligative property is the decrease in a certain temperature caused by adding more of a solute to a solvent. It's the reason that salts are used to make snow melt faster.
ANSWER: **freezing-point depression**
[10] Freezing point depression is calculated by multiplying the cryoscopic constant and the van 't Hoff factor by this quantity.
ANSWER: **molality**

7. This philosophical argument was discussed in the work *Pensées*. For 10 points each:
[10] Name this ontological argument, which discusses a "wager" all humans must make, the effects of which, according to its namesake, can include eternal life or damnation.
ANSWER: **Pascal's Wager**
[10] Pascal's Wager is a bet regarding this question. Teleological and ontological arguments concern this question, whose affirmative is defended by theologians.
ANSWER: **existence of God** [accept obvious equivalents like "**whether God exists**"]
[10] This Benedictine monk and Archbishop of Canterbury developed the first known ontological argument in his *Proslogion*.
ANSWER: Saint **Anselm** of Canterbury [accept "**Anselm** of Aosta" or "**Anselm** of Bec"]

8. This novel's protagonist falls into a canal trying to retrieve a bird belonging to Sophia Western, whom the protagonist fights over with Master Bilfil. For 10 points each:
[10] Name this novel, whose title foundling, raised by Squire Allworthy, discovers that his real mother is Bridget Allworthy instead of the servant Jenny.
ANSWER: *The History of **Tom Jones**, a Foundling*
[10] *Tom Jones* is a work of this author who wrote of Lady Booby's attempts to seduce the title character in *Joseph Andrews*.
ANSWER: Henry **Fielding**
[10] Fielding wrote a play about the life and death of this character in *The Tragedy of Tragedies*. He wrote an earlier play titled for this figure killed by Grizzle after gaining King Arthur's favor.
ANSWER: Tom **Thumb**

9. A sign in this country's capital reading "Pazi- Snajper!" warned civilians of a dangerous boulevard. For 10 points each:
[10] Name this country that suffered the Srebrenica Massacre and whose capital Sarajevo survived an almost four year siege. This country is often named with Herzegovina.
ANSWER: **Bosnia** [accept "**Bosna**"]
[10] Joe Biden told this man, "I think you're a damn war criminal and you should be tried as one." This man led Serbia and Yugoslavia during the Yugoslav Wars.
ANSWER: Slobodan **Milošević**
[10] The United Nations established a tribunal in this city to prosecute war criminals from former Yugoslavia. It is home to the International Court of Justice.
ANSWER: The **Hague** [accept "Den **Haag**"]

10. A "Ferris wheel" was designed to simulate artificial gravity in this film in which astronauts investigate a black monolith on the moon. For 10 points each:
[10] Name this film about the crew of the spaceship Discovery One and the AI "Hal".
ANSWER: *2001: A Space Odyssey*
[10] This director of *2001: A Space Odyssey* also directed *The Shining* and *Dr. Strangelove*.
ANSWER: Stanley **Kubrick**
[10] This Hungarian composer's *Atmospheres* and *Lux Aeterna* appeared in *2001: A Space Odyssey*. He also wrote the opera *Le Grand Macabre* and a droning, micropolyphonic *Requiem*.
ANSWER: György Sándor **Ligeti**

11. This poem's narrator claims that "Since then 'tis centuries; but each feels shorter than the day I first surmised the horses' heads were towards eternity". For 10 points each:
[10] Name this poem whose narrator rides in a carriage with the title figure and Immortality after "He kindly stopped for me" since she could not perform the title action.
ANSWER: "**Because I could not stop for Death**"
[10] "Because I could not stop for Death" is a poem by this eccentric Belle of Amherst whose poems were mostly unpublished till after her death.
ANSWER: Emily Elizabeth **Dickinson**
[10] Dickinson describes this creature "With blue, uncertain, stumbling buzz" in a poem in which she "could not see to see" and claims to have heard this creature buzz when she died.
ANSWER: **fly**

12. Name some European mountain ranges, for 10 points each:
[10] Famous peaks in this range include the Matterhorn and Mont Blanc. A hospice in its St. Bernard Pass once rescued travelers lost in this range.
ANSWER: **Alps**
[10] The highest peak in this Russian range is Mt. Narodnaya. The eastern side of these mountains is traditionally considered the boundary between Europe and Asia.
ANSWER: **Ural** Mountains
[10] This Central European mountain range is bounded at the south by the Danube River and the Iron Gates. Krakow and Bratislava are located in these mountains.
ANSWER: **Carpathian** Mountains

13. REM and non-REM are stages in this phenomenon. For 10 points each:
[10] Name this phenomenon that often includes dreams.
ANSWER: **sleep**
[10] This phenomenon occurs when a person becomes aware of his or her dreams or controls them.
ANSWER: **lucid dream**ing
[10] This disorder, which is either obstructive or central, occurs when there are gaps in breathing. Snoring is a mild form of this sleep disorder.
ANSWER: sleep **apnea**

14. [10] Name these units of infantry composed of former Christians converted to Islam by the *devşirme* system.
ANSWER: **janissaries**
[10] The janissaries served this empire's sultans like Suleiman the Magnificent. The Young Turks reformed this empire's absolute monarchy.
ANSWER: **Ottoman** Empire
[10] This series of reforms in the late Ottoman empire, begun by Mahmud II, restructured taxation and abolished slavery and the *millet* system with the Rescript of the Rose Chamber.
ANSWER: **Tanzimât** reforms

15. In the center of a painting by this artist, a boy and a nude woman watch as he works on a landscape, while others, including his friend, Proudhon, crowd around them. For 10 points each:
[10] Identify this artist of *The Painter's Studio*, who depicted tools lying around as two men in tattered clothing work in his now-destroyed painting, *The Stone Breakers*.
ANSWER: Gustave **Courbet**
[10] Courbet was a member of this art movement that attempted to depict ordinary life. Its members included Honore Daumier and the painter of *The Gleaners*, Jean Francois Millet.
ANSWER: **Realism** [accept word forms]
[10] This other painting by Courbet features a young boy holding a censer and a coffin draped with a sheet marked by a black X in its depiction of an ordinary funeral.
ANSWER: *A **Burial At Ornans*** [accept "*Un **enterrement à Ornans***"]

16. This man solved a riddle involving threading a seashell by coaxing an ant with honey. For 10 points each:
[10] Name this man hunted by King Minos. He also constructed a prison for Pasiphaë's son.
ANSWER: **Daedalus**
[10] In order to escape Crete, Daedalus made wings out of feathers fixed with wax. This son of Daedalus flew too close to the sun, melting the wax and resulting in his demise.
ANSWER: **Icarus**
[10] Daedalus pushing this inventive nephew of his off a tower out of jealousy. Athena saved this man by changing him into a partridge, a type of bird that avoids heights.
ANSWER: **Perdix**

17. These mathematical objects all have a Hausdorff dimension greater than their topological dimension. For 10 points each:
[10] Name these objects characterized by self-similarity. They are exemplified by the Julia and Cantor sets.
ANSWER: **fractal**s
[10] This fractal named for the coiner of the word "fractal" is the set of all points in the complex plane such that the next term in a sequence equals the preceding term squared plus a constant.
ANSWER: **Mandelbrot** set
[10] These mathematical objects are types of attractors that have a fractal structure and are often chaotic. The Lorenz attractor is an example of them.
ANSWER: **strange** attractors

18. For 10 points each, name some American presidents who were also generals.
[10] This Republican was the Supreme Commander of the Allied Forces in Europe during the Second World War. He sent the 101st Airborne Division to protect the Little Rock Nine.
ANSWER: Dwight David **Eisenhower**
[10] This twelfth president had no political experience but was called "Old Rough and Ready" for his service in the Seminole War. When he died in office, Millard Fillmore succeeded him.
ANSWER: Zachary **Taylor**
[10] This New Hampshire Democrat, Fillmore's successor, commanded a brigade in the Mexican-American War. He failed to control the sectionalism that led to the Civil War.
ANSWER: Franklin **Pierce**

19. In this novel, Zhu Baijie carries a nine-toothed rake on the title voyage. For 10 points each:
[10] Name this Chinese novel written by Wu Cheng'en about a Buddhist monk's companions traveling to retrieve some holy texts from India.
ANSWER: ***Journey to the West*** [accept ***Xī Yóu Jì***]
[10] This Buddhist monk was chosen by Guanyin to receive the scriptures from Buddha at Vulture Peak. He is based on a historical monk of the same name who lived in the Tang period.
ANSWER: **Xuanzang** [accept "**Tritipaka**" or "**Tang Sanzang**"]
[10] In *Journey to the West*, Xuanzang's companion Sun Wukong is one of these animals. Another fictional one of these animals is Curious George.
ANSWER: **monkey**

20. This man embroidered his robes with an idol so that anyone who bowed to him bowed to it. For 10 points each:
[10] Name this Agagite whose wife Zeresh encouraged him to build a gallows of fifty cubits.
ANSWER: **Haman**
[10] Haman was replaced by Mordecai, the cousin of this Jewish queen of Ahasuerus. Her namesake book is the only book of the Bible that does not mention God.
ANSWER: **Esther**
[10] Esther's saving the Jews is celebrated with this festival in the month of Adar. Charity is practiced during this holiday, during which Haman's name is obscured by ratchets or *gragger*.
ANSWER: **Purim**

TB. Name some assassins who killed famous Americans, for 10 points each:
[10] This man was refused a diplomatic job many times, which spurred him to kill President James Garfield. The Pendleton Act ended the patronage system that he tried to enter.
ANSWER: Charles Julius **Guiteau**
[10] This other assassin, a Jordanian national, assassinated Robert F. Kennedy while the latter was walking through the kitchen of the Ambassador Hotel.
ANSWER: Sirhan **Sirhan**
[10] This actor who assassinated Abraham Lincoln uttered Virginia's state motto, *sic semper tyrannis*, as he fled Ford's Theatre.
ANSWER: John Wilkes **Booth**