

Bulldog High School Academic Tournament 2020 (XXIX): scary vibes

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Packet 4 Tossups

1. **Mining gold in the game *RuneScape* has become a major source of livelihood in this country. The leader of a failed 2019 coup in this country lost his status as the president of its National Assembly less than twenty-four hours after the White House congratulated him on his supposed reelection. Food shortages that led to widespread malnutrition under this (*) OPEC member's president between 2016 and 2017 were called his namesake "diet."** Opposition leader Juan Guaidó from this country attended the 2020 State of the Union address. For 10 points, name this country once ruled by Hugo Chávez where Nicolás Maduro declared a state of economic emergency in 2015.

ANSWER: Bolivarian Republic of Venezuela [or República Bolivariana de Venezuela] <HK>

2. **In this country, the preacher Samuel Sharpe led a slave rebellion in the Baptist War. Edward Eyre declared martial law in this country after followers of Paul Bogle protested poverty in Morant Bay. Two "Maroon Wars" were fought in this country. A native of this country founded the Black Star Line, which sought to return Africans to Africa; that native of this country was (*) Marcus Garvey.** Adherents of a religion from this country consider the Ethiopian emperor Haile Selassie to be the Messiah. A 1792 earthquake destroyed this country's city of Port Royal. Rastafarianism developed in—for 10 points—what Caribbean country with capital at Kingston?

ANSWER: Jamaica <VS>

3. **The decline in the strength of this entity has been monitored by satellites such as Ørsted. Cooling igneous rock acquires a thermoremanent quantity as a result of this entity. This entity was affected in the Brunhes–Matuyama event and the Laschamp event. Dynamo theory holds that (*) convection currents of electrically conductive liquid in the outer core are responsible for this entity.** The Vine–Matthews–Morley hypothesis links "stripes" along the seafloor to reversals in this entity, whose strength ranges from 25 to 65 microtesla. For 10 points, name this entity which causes compasses to point northward.

ANSWER: geomagnetic field [or Earth's magnetic field; prompt on magnetic field] <BY>

4. **Thomas Reid is probably best remembered as the "earliest and fiercest critic" of this philosopher, who famously argued that we cannot know the result of two billiard balls colliding without prior experience. In addition to discussing the "origin" and "association" of ideas, this philosopher divided truths into "relations of ideas" or "matters of fact," his namesake (*) "fork."** This thinker provided an exception to his "copy principle" by presenting the case of a "missing shade of blue." Kant claimed that this man woke him from his "dogmatic slumber." For 10 points, what Scottish philosopher wrote *An Enquiry Concerning Human Understanding*?

ANSWER: David Hume <VS>

5. This poet described an animal whose “powerful soft strides” are “like a ritual dance around a center / in which a mighty will stands paralyzed.” This writer advised “go into yourself” in writings addressed to Franz Xaver Kappus. This man wrote a poem that describes how a work of art “glisten[s] like a wild beast’s fur” and laments the loss of its “eyes like ripening fruit.” That poem by this author of the (*) *Letters to a Young Poet* concludes “you must change your life.” This author opened the first of a series of ten poems with the line “Who, if I cried out, would hear me among the angelic orders?” For 10 points, name this poet of “Archaic Torso of Apollo” and the *Duino Elegies*.

ANSWER: Rainer Maria Rilke <JW>

6. A 2010 exhibition at this place sparked protests over the featured artist’s sculptures of otaku culture, though *My Lonesome Cowboy* was not included in that Takashi Murakami exhibit. *Apollo Belvidere* inspired a statue of a god being served by nymphs in this place’s gardens, replacing an earlier installation by Andre Le Nôtre. Jules Hardouin (*) Mansart helped design this place’s orangery, whose trees bloomed year round. Mansart also used red marble for this location’s Grand Trianon. Workers from Venice created the most famous features of a hall in this place that was designed by Charles Le Brun. The Hall of Mirrors is in—for 10 points—what French palace commissioned by Louis XIV?

ANSWER: Palace of Versailles [or Château de Versailles] <AY>

7. The “marginal” and “chief” examples of these things are typically the first two to be drawn on diagrams of them. These things are assumed to be nearly parallel to a system’s axis in the paraxial approximation. These things are always perpendicular to wavefronts, and those that originate from the same place reconvene at the (*) focal point. In simple computer graphics, these things are “traced” through an environment until they hit a pixel. When one of them undergoes specular reflection, it has identical angles of incidence and reflection. Optics often treats light in the form of—for 10 points—what idealized objects that point straight in a particular direction?

ANSWER: light rays <SE>

8. In a novel by this author, the wife of the civil servant Henry catches pneumonia after she flees into the rain to escape her ex-lover. In another novel by this author, the protagonist meets his illegitimate daughter, Brigida, while fleeing the police; that novel opens with the dentist Mr. Tench walking towards a quay. Sarah (*) Miles breaks off a fling with Maurice Bendrix in one of this author’s four “Catholic novels.” In one of this author’s novels, the *mestizo* aids “The Lieutenant” in capturing a “whisky priest” in Mexico. For 10 points, name this British author of *The End of the Affair* and *The Power and the Glory*.

ANSWER: (Henry) Graham Greene <MK>

9. This man gifted a bottle of rum to the Seneca Queen Alliquippa in thanks for the aid of her son, Kanuksusy. Together with the Mingo leader Half-King, this man led an ambush that captured Joseph Coulon de Jumonville. This man presided at Edward Braddock’s funeral after the Battle of Monongahela. He and James Mackay surrendered (*) Fort Necessity to a French force. This man’s army surprised Johann Rall’s Hessian auxiliaries at Trenton and wintered at Valley Forge. For 10 points, name this participant in the French and Indian War, who later served as commander-in-chief of the Continental Army during the American Revolution.

ANSWER: George Washington <VS>

10. After looking away from the bared breasts of a group of women, this character was forced into three tubs of water to cool off. This figure's primary weapon had thirty barbs and was created from a bone of a sea monster who had died while fighting another sea monster. This figure fought a three-day battle in a ford against his best friend, (*) Ferdiad. This figure rejected the advances of the disguised goddess Morrigan. As a youth, this wielder of the spear Gae Bulg [gay-BOLG] offered to act as the replacement for a guard-dog that he had killed. For 10 points, name Irish hero who defeated Queen Medb at the Cattle Raid of Cooley.

ANSWER: Cú Chulainn [or Cuhullin; or Setanta] <MK>

11. In some places, men celebrate this holiday by making human pyramids in an attempt to reach a pot of butter. In a celebration preceding this holiday, women drink *bhong* and beat shield-bearing men with sticks called *lathis*. This holiday recalls how a demon king, immune to both *astra* and *shastra*, was killed by the claws of the half-lion Narasimha. (*) Bonfires set on the eve of this holiday commemorate the saving of the demon king's son, Prahlad. During this holiday, people throw *gulas* on each other in the streets. For 10 points, name this colorful Hindu festival of spring and love.

ANSWER: Holi [accept Phagwah, Dol Jatra, Basanta Utsav, or Dhuli Vandana] <HK>

12. A Lewis acid consisting of iron or aluminum bonded to three atoms of one member of this group catalyzes the Friedel–Crafts reaction. With magnesium and an R group, they can form Grignard reagents. The namesake number of one member of this group determines the degree of unsaturation in fatty acids; whose application also follows crystal (*) violet stain. One member of this group forms a weak but corrosive monoprotic acid which can etch glass; the other elements in this group all form similar strong acids. Members of this group have the highest electronegativity of their rows as they each have seven valence electrons. For 10 points, name this group which includes fluorine and chlorine.

ANSWER: halogens [or group 17; or group 7-A] <MP/HK>

13. A character in this film says “If we stop breathing, we'll die. If we stop fighting our enemies, the world will die.” In this film, a character tells a piano player to play “some of the old songs,” then urges him to play “As Time Goes By.” In this film, Ugarte is arrested before he can arrange the sale of the (*) letters of transit. In this film, a man touches his former lover's chin and says “here's looking at you, kid.” In this film, the house band at a “café” drowns out German officers' singing of *Die Wacht am Rhein* by playing *La Marseillaise*. Ilsa leaves Rick at the end of—for 10 points—what 1942 film titled after a city in Morocco?

ANSWER: Casablanca <MK>

14. The earliest continuous inscription of this civilization's language is found on the “Ahiram Sarcophagus.” A general said that he would spare one of this civilization's cities if he could sacrifice in its temple of Melqart. The Magonid family ruled a city founded by this civilization. This civilization collected *murex* sea snails to produce (*) purple dye. Alexander the Great built a causeway to attack this civilization's city of Tyre. This civilization produced a consonantal alphabet that formed the basis of Greek writing. For 10 points, name this seafaring Semitic civilization from the eastern Mediterranean that founded Carthage.

ANSWER: Phoenicians <MK>

15. One song by this man begins by describing being “lost in the rain in Juarez when it's Easter time.” This man wrote about being “stuck inside of Mobile with the Memphis blues again” in 1966 and about being “tangled up in blue” in 1975. This man described himself as “Freewheelin'” in the title of a collection which included “A (*) Hard Rain's a-Gonna Fall.” This man wrote about a “jingle jangle morning” in a song that exhorts its title figure to “play a song for me,” “Mr. Tambourine Man.” For 10 points, identify this American singer-songwriter and poet who wrote songs like “Blowin' in the Wind” and won the 2016 Nobel Prize in Literature.

ANSWER: Bob Dylan [or Robert Zimmerman] <DR>

16. A sequel to one of this author's novels was adapted into the Broadway musical *Pipe Dream*; that novel, *Sweet Thursday*, features the Palace Flophouse and follows the romance between the prostitute Suzy and the marine biologist Doc. The climax of another novel by this author features a missing (*) Luger pistol that one character uses to euthanize another. In a novel by this author, a recent parolee from McAlester Prison leads his family from Oklahoma to California to escape the Dust Bowl. That novel by this author centers on the Joad family. For 10 points, name this author who wrote *Of Mice and Men* and *The Grapes of Wrath*.

ANSWER: John Steinbeck <BCE>

17. The toxin which causes this disease enters cells via GM1 gangliosides, after which it upregulates adenylate cyclase activity. Zinc supplementation has been found to be successful in treating this disease, against which the allele responsible for (*) cystic fibrosis confers protection. The humanitarian crisis in Yemen has contributed to an ongoing outbreak of this disease, the largest in recorded history. This condition can cause severe volume depletion which requires IV fluids, but in milder cases of this condition caused by an organism in genus *Vibrio*, oral rehydration is sufficient. For 10 points, name this water-borne illness which causes watery diarrhea and dehydration.

ANSWER: cholera [accept *Vibrio cholerae*] <HK>

18. According to legend, a ruler of this name lived 39 years as a monk after faking his death from typhus; in reality, however, the Northern and Southern Societies revolted in favor of his brother Constantine when he died. A ruler of this name began a war against the Ottoman Empire that resulted in the Treaty of San Stefano. A ruler of this name boarded a raft in the Neman river to sign the Treaty of (*) Tilsit with Napoleon. A ruler of this name instituted the *zemstvo* self-government system. Ignacy Hryniewiecki [hrɪh-nyeh-VYEHT-skee], a member of the People's Will, assassinated the second ruler of this name. For 10 points, give this name shared by three tsars of Russia, including the one who liberated the serfs.

ANSWER: Alexander [or Alexander I; or Alexander II; or Alexander the Liberator or Alexander III; or Alexander the Peacemaker] <MK>

19. A small version of this instrument is featured as a soloist in J.S. Bach's first *Brandenburg Concerto*. A set of twelve sonatas for this instrument that was published in the year 1700 as its composer's Opus 5 ends with a set of variations on "La Follia" and was written by Arcangelo Corelli. Bach's two solo concertos for this instrument are in A minor and E Major, and he wrote a D-minor concerto for (*) two of them. An E-major concerto for this instrument depicts storms, a barking dog, birds, and other sounds of Spring. Bach included a 15-minute Chaconne in his six *Sonatas and Partitas* for this instrument. Vivaldi's *Four Seasons* features—for 10 points—what highest string instrument?

ANSWER: violins <JW>

20. This author described his poetry collection as "just now polished with a dry pumice stone." This author asked for a "thousand kisses, then a hundred" in a poem that begins "let us live and let us love!" This author recalled "speaking in vain to silent ash" in a poem that invokes his voyage "through many nations and over many seas." That poem by this author describes the (*) Bithynian grave of his brother, whom he toasts with the line "hail and farewell." This poet began an elegiac couplet with the terse sentiment "I hate and I love." For 10 points, name this Roman poet who addressed many verses to his pseudonymous lover Lesbia.

ANSWER: Gaius Valerius Catullus <MK>

Tiebreaker

A short story by this author describes a character “who sees without using his eyes” and can predict the future. In addition to the tale of Henry Sugar, this author wrote autobiographical works like *Going Solo*, as well as one that describes his frequent childhood trips to Norway, *Boy*. A flying vehicle is home to such characters as (*) Glowworm and Centipede in one book by this author, whose books were usually illustrated by Quentin Blake. In another book by this author, Sophie is abducted by a being who catches dreams with a large trumpet, the “Big Friendly Giant.” For ten points, name this British author of the popular children's novels *Matilda* and *James and the Giant Peach*.

ANSWER: Roald **Dahl** <VS>

Bonuses

1. For 10 points each—answer the following about Blues guitarists:

[10] One of the first blues guitarists was this Mississippian who died in 1938 at the age of 27. His song “Cross Road Blues” helped reinforce the legend that he sold his soul to the devil.

ANSWER: Robert (Leroy) **Johnson**

[10] One of the first recordings of electric blues was in a T-Bone Walker song named for a “stormy” version of *this* time period.

ANSWER: **Monday** [accept “Call It **Stormy Monday**”]

[10] Blues songs typically use a form named for this number of “bars.” This is the number of pitches in a one-octave chromatic scale.

ANSWER: **twelve**-bar blues <BCE>

2. Some insects are able to walk on water due to the effect of this phenomenon. For 10 points each:

[10] Name this quantity resulting from cohesive forces that’s symbolized lowercase gamma. Surfactants like SDS can lower this quantity responsible for capillary action.

ANSWER: **surface tension**

[10] The du Noüy [du-NOY] ring method measures surface tension using a ring made of this material. This highly unreactive precious metal is also used to make the standard hydrogen electrode.

ANSWER: **platinum** [or **Pt**]

[10] With Young, this Frenchman names a differential equation that describes the capillary pressure difference at the interface of two fluids due to surface tension. He also names an operator equal to the divergence of the gradient.

ANSWER: Pierre-Simon **Laplace** <HK>

3. This story begins with the phrase “One dollar and eighty-seven cents” and ends with a comparison between the actions of the main characters and those of the title figures. For 10 points each:

[10] Name this short story in which a husband and wife sell their valuables in order to buy each other Christmas gifts.

ANSWER: “The **Gift of the Magi**”

[10] In “The Gift of the Magi,” Della sells her hair to the hairdresser Madame Sofronie in order to buy Jim an accessory for this item. Unfortunately, Jim has sold this item in order to buy Della a set of combs.

ANSWER: pocket **watch**

[10] “The Gift of the Magi” is by this American author of *Cabbages and Kings*, who is famous for his use of surprise endings.

ANSWER: O. **Henry** [or William Sydney **Porter**] <VS>

4. The American theater of the War of the Spanish Succession was known as “[this queen’s] War.” For 10 points each:

[10] Name this last Stuart monarch of England, during whose reign England and Scotland combined through joint “Acts of Union.”

ANSWER: Queen **Anne** I

[10] The “Statute of Anne,” which passed during the queen’s reign, represented the first governmental regulation of this right in Britain. Under this right, only the original creator of a work may reproduce that work.

ANSWER: **copyright**

[10] This female Whig enjoyed a long friendship with Anne before Abigail Masham, a Tory, supplanted her as the queen’s favorite. John Vanbrugh designed Blenheim Palace for this woman and her husband.

ANSWER: **Sarah Churchill** [or Sarah, **Duchess of Marlborough**; prompt on **Churchill**] <MK>

5. This city was once known as the “Paris of the North” for its incredible beauty. For 10 points each:

[10] Name this city termed the Phoenix City for its reconstruction after the German occupation in World War II. Sigismund’s Column is located in Castle Square in this capital of Poland.

ANSWER: **Warsaw** [accept **Warszawa**]

[10] Anastylis was used to reconstruct a section of Warsaw known by this specific term, referring to its status as the city’s historic center. In German-speaking countries, the term “Altstadt” is used for these neighborhoods.

ANSWER: **old town** [accept **stare miasto** or **starówka**]

[10] The Warsaw Old Town is bordered on one side by the banks of this river, which bisects the city. The majority of this river, which empties into the Baltic Sea at Gdańsk, is contained in Poland.

ANSWER: **Vistula** River <JS>

6. The title of this translation derives from the legend that 70 scholars, sent to separate rooms, all arrived separately at identical renditions of the original text. For 10 points each:

[10] Name this influential pre-Christian translation of the Hebrew scriptures, commissioned by Ptolemy II Philadelphus of Egypt.

ANSWER: **Septuagint**

[10] The Septuagint was the first recorded translation of the Hebrew Bible into this language. The New Testament was written in the *Koine* [coin-AY] dialect of this language, which uses letters like “alpha” and “omega.”

ANSWER: Ancient **Greek**

[10] The first major Latin translation of the Bible, now known as the Vulgate, was carried out by this famously ascetic scholar at the request of Pope Damasus I.

ANSWER: Saint **Jerome** [or Eusebius Sophronius **Hieronymus**] <JW>

7. Like Leopold Bloom from *Ulysses* and Edmond Dantès from *The Count of Monte Cristo*, this dramatic character is often characterized as an “everyman.” For 10 points each:

[10] Name this figure, a recurring character in his author’s works. This man discovers a “radiant city” in *The Killer* and appears as a monarch with magical powers in *Exit the King*.

ANSWER: **Bérenger**

[10] Bérenger also appears in this Eugène Ionesco play, in which all but one of the inhabitants of a small French town turn into the title animal. It is commonly interpreted as an allegory for the rise of fascism in Romania.

ANSWER: **Rhinoceros**

[10] Ionesco was a member of a dramatic school known as the Theatre of [this concept]. Albert Camus used Sisyphus as a symbol of this concept, described as our inability to find meaning in an irrational universe.

ANSWER: the **absurd** [accept word forms] <MGS>

8. Despite his role as the beloved child star of this show, Frankie Muniz doesn’t remember most of its filming or airing. For 10 points each:

[10] Name this FOX sitcom about a comically dysfunctional working-class family of four boys. In this show, the oldest boy, Francis, has been sent away to military school by his parents.

ANSWER: **Malcolm in the Middle**

[10] In *Malcolm in the Middle*, Malcolm’s immature but caring father, Hal, is played by this actor, now better known for his role as Walter White in AMC’s *Breaking Bad*.

ANSWER: Bryan **Cranston**

[10] In 2006, Frankie Muniz mostly retired from acting. Since then, he’s owned an olive-oil and vinegar supplier, joined several indie bands, and competed as a semi-pro in this sport.

ANSWER: **racing** [accept **race car** driving] <MGS>

9. This ballet by Léo Delibes features a “Waltz of the Hours” and was based on E.T.A. Hoffmann’s *Der Sandmann* and *Die Puppe* [POO-puh]. For 10 points each:

[10] Name this ballet in which an evil inventor attempts to use Franz as a human sacrifice to bring the title doll to life. The inventor is tricked into thinking his plan has worked when Swanhilda impersonates that doll.

ANSWER: **Coppélia**

[10] The title doll of this composer’s *The Nutcracker* saves Clara from the Mouse King. This man’s other ballets include *Swan Lake* and *Romeo and Juliet*, and he also wrote the *1812 Overture*.

ANSWER: Pyotr Ilyich **Tchaikovsky**

[10] This Stravinsky ballet is about puppets rather than dolls. It sees the title puppet fall in love with “The Ballerina” but ultimately be stabbed by “the Moor.”

ANSWER: **Petrushka** <HK>

10. Answer the following about molecular cloning for 10 points each.

[10] Name these non-chromosomal circular segments of DNA that are often used as vectors for inserting genes of interest into bacterial expression systems. The pGLO one of these things contains the gene for GFP.

ANSWER: **plasmids**

[10] Plasmids designated as “R” and gene cassettes like SCCmec encode genes whose products are enzymes which confer this property to their hosts. This property allows for selection of cells transformed with plasmids of interest.

ANSWER: **antibiotic resistance** [accept equivalents like **drug resistance**]

[10] A common expression system for genes of interest is this Gram-negative model organism which occasionally causes food poisoning but normally colonizes the lower intestine, where it synthesizes vitamin K.

ANSWER: **Escherichia coli** <HK>

11. From 1963 to 1979, this country underwent a series of secularizing reforms called the “White Revolution.” For 10 points each:

[10] Name this country where a politician dissolved the brutal SAVAK secret police in 1979. This country is currently governed by a twelve-member Guardian Council.

ANSWER: **Iran**

[10] In 1979, a group of Iranian college students occupied one of these buildings in Tehran, taking its employees hostage despite the privileges of diplomatic immunity.

ANSWER: **Embassy** of the United States in Tehran [or **embassies**]

[10] In 1953, prior to the White Revolution, the United States overthrew this Prime Minister of Iran with Operation Ajax. This Prime Minister had attempted to nationalize the Anglo-Iranian Oil Company.

ANSWER: Mohammad **Mosaddegh** <HK>

12. Answer some questions about snakes in legends, for 10 points each:

[10] According to legend, this saint drove all of Ireland’s snakes into the sea when they interrupted his 40-day feast. This saint’s feast day of March 17 has become a holiday for the Irish diaspora around the world.

ANSWER: Saint **Patrick** [or Saint **Patrick**’s Day]

[10] In Egyptian mythology, this goddess used clay and spit to create a snake that bites Ra. With her sister Nephthys, this goddess recovered all but one piece of her dismembered husband.

ANSWER: **Isis** [accept **Iset** and **Aset**]

[10] In Greek mythology, the snake Ladon had this many heads. Gyes, Briareus and Cottus comprised the Hekatonkheires [heck-a-TON-kay-rays], who had this many hands.

ANSWER: **100** [or one **hundred**] <MK>

13. For this philosopher, the two most important things in life are *ataraxia*, or freedom from worry, and *aponia*, or absence of pain. For 10 points each:

[10] Name this philosopher who is mostly famous for the work of his later followers, like Lucretius. The adjectival form of his name is now often used, erroneously, to refer to a hedonist.

ANSWER: **Epicurus** [accept **epicurean**]

[10] Lucretius is most famous for this work, a long didactic poem meant to explain Epicurean ethics and metaphysics to a Roman audience.

ANSWER: **De rerum natura** [or **On the Nature of Things**]

[10] Epicurus and Lucretius both believed that these things were the fundamental constituents of all matter, even the gods. They were later vindicated by science, which shows these things to consist of a nucleus and some electrons.

ANSWER: **atoms** <JW>

14. An essay written in this language renounces its use in favor of its author's native Gikuyu. For 10 points each:

[10] Name this language that one writer disavowed in order to decolonize his mind. The writer of that essay called for native Africans to do for their languages what Shakespeare, Spenser, and Milton did for *this* language.

ANSWER: **English**

[10] This author of "Decolonizing the Mind" abandoned English shortly after publishing *A Grain of Wheat*. He also wrote a novel whose title comes from Derek Walcott's *Omeros*, *Petals of Blood*.

ANSWER: **Ngũgĩ** wa Thiong'o

[10] Ngũgĩ recounted how his classmates who spoke native languages were forced to wear signs reading "I am [one of these animals]." In *Animal Farm*, one of these animals named Benjamin has the motto "I will work harder."

ANSWER: **donkey** <HK>

15. Utagawa Kuniyoshi depicted the swordsman Miyamoto Musashi piercing one of these creatures with his sword off the coast of Hizen. For 10 points each:

[10] Name these animals, often featured in woodblock prints alongside a proverb that claims "one of [these creatures] makes seven shores more prosperous." Carvings in their bones and teeth are known as scrimshaw.

ANSWER: **whale**

[10] This artist showed a whale being hunted off the coast of Goto in his *Chie no umi* series. More famously, he included *The Great Wave off Kanagawa* in his *Thirty-Six Views of Mount Fuji*.

ANSWER: **Hokusai**

[10] Hokusai's *Whaling off the Coast of the Goto Islands* falls under this broad genre of Japanese art, whose other masters included Kuniyoshi and Hiroshige. Its name translates to "pictures of the floating world."

ANSWER: **ukiyo-e** <JW>

16. Pictures of this planet showed an odd hexagonal shape near its northern aurora. For 10 points each:

[10] Name this planet which was studied by the Cassini-Huygens mission. It is also known for its prominent rings.

ANSWER: **Saturn**

[10] This was the first probe to take detailed photos of Saturn's moons. Having left the Solar System in 2012, this probe is currently the most distant man-made object from the Earth.

ANSWER: **Voyager 1** [prompt on **Voyager**]

[10] Voyager 1 was able to gain enough velocity to exit the solar system by performing this maneuver around Saturn.

ANSWER: **gravity assist** [accept **gravity slingshot**, or **gravitational assist**, or **gravitational slingshot**; prompt on **swing-by**] <BY>

17. Live combat broadcasting was introduced during this war. For 10 points each:

[10] Name this war where Norman Schwarzkopf and Colin Powell led coalition forces. During this war, the Republican Guard was heavily bombed while retreating on the “Highway of Death.”

ANSWER: First **Gulf War** [accept **Persian Gulf War**; accept First **Iraq War**; accept **Kuwait War**; prompt on Operation **Desert Shield**; prompt on “Operation **Desert Storm**”]

[10] This network provided the majority of live combat broadcasting during the Gulf War. Ted Turner founded this Atlanta-based network, whose anchors include Anderson Cooper.

ANSWER: **Cable News Network**

[10] *Description acceptable.* During the Gulf War, retreating Iraqi forces undertook this action in an attempt to economically cripple Kuwait, creating a hard layer of “tarcrete” that covered five percent of the country.

ANSWER: **burning** Kuwaiti **oil wells** [accept any answers indicating **setting fire** to Kuwaiti **oil**, **oil wells**, or **oil fields**] <JS>

18. Paul Doll plots to murder his wife Hannah in this author’s most recent novel, *The Zone of Interest*. For 10 points each:

[10] Identify this British writer, whose father wrote such works as *Lucky Jim*. This author’s novel *Time’s Arrow* tells the story of Nazi doctor Odilo Unverdorben in reverse as he creates, rather than takes, lives.

ANSWER: **Martin Amis** [prompt on **Amis**; do not accept or prompt on “Kingsley Amis”]

[10] *Time’s Arrow* and *The Zone of Interest* are both set in Auschwitz during this World War II genocide.

ANSWER: the **Holocaust** [or the **Shoah**]

[10] Early in this book, Madame Schächter is beaten after screaming that she can see flames in the distance. This memoir by a Romanian-born Holocaust survivor recounts his experience at Auschwitz and Buchenwald.

ANSWER: **Night** [accept *La Nuit*] (by Elie Wiesel) <SL>

19. The analog “moving coil” type of these devices has generally been superseded by more precise digital models. For 10 points each:

[10] Name these versatile tools for characterizing electric circuits. A dial on the front allows their user to toggle between measuring DC voltage, AC voltage, current, and resistance.

ANSWER: **multimeters** [or **multitesters**]

[10] To use a multimeter, one connects it to the circuit under study with a pair of test leads, which typically have rubber insulation of these *two* colors.

ANSWER: **red** and **black** [accept in either order]

[10] The central “COM” port on a multimeter is typically connected to this circuit reference point that is assigned a voltage of zero volts. As its name suggests, it is sometimes connected directly to the Earth.

ANSWER: **ground** <SE>

20. This event was ostensibly a reaction to the murder of Ernst vom Rath. For 10 points each:

[10] Name this November 1938 pogrom, in which the Nazi SA destroyed synagogues and Jewish businesses around Germany. Either the German or the English name is acceptable.

ANSWER: **Kristallnacht** [or **Night of the Broken Glass**]

[10] Following *Kristallnacht*, Reinhard Heydrich first proposed that Jews wear a standard identifying badge. Eventually, he mandated that all Jews in the Reich wear a yellow felt badge in the shape of this symbol.

ANSWER: **Star** of David

[10] Despite legend, this king of Denmark never wore a Star of David during World War II in support of his country’s Jews. However, he did ride his horse through Copenhagen every day during its first years of occupation.

ANSWER: **Christian X** <MK>

Tiebreaker

Angiopoietin [AN-gee-oh-POH-eh-tin] ligands bind to Tie-2 receptors to stimulate this process. For 10 points each:

[10] Name this process by which new blood vessels form from pre-existing ones. This process comes in splitting and intussusceptive types, is vital in wound healing, and plays a role in the pathology of some diseases.

ANSWER: **angiogenesis** [prompt on vasculogenesis]

[10] The ability to induce angiogenesis is one of the hallmarks of *this* type of disease laid out by Hanahan and Weinberg. This type of disease is characterized by uncontrolled cell growth and often results in tumor formation.

ANSWER: **cancers**

[10] *Description acceptable.* Solid tumors induce angiogenesis because they lack internal blood supply, leading to this condition. This state leads to the Warburg effect, wherein tumors revert mainly to glycolysis for metabolism.

ANSWER: **hypoxia** [or **anoxia**; accept any answer indicating **lack** of **oxygen** or **low oxygen**] <HK>