

TOSSUPS

1. EsRNAs [*“E-S-R-N-A”s*] are carried by an extracellular type of these structures. The role of genes like *sec1* in transport of these structures was discovered by Randy Schekman, who with Südhof and Rothman won a 2013 Nobel for work on them. Exosomes are a type of these structures, whose docking is mediated by (*) SNAREs. COPI and COPII are coat proteins on them. During endocytosis, they originate via budding from the plasma membrane. The Golgi apparatus packages proteins in these structures. For 10 points, name these small membrane-bound structures that transport materials in the cell.

ANSWER: vesicles [accept exosomes before mentioned; accept any answer containing “vesicles”]

2. This party managed a large election win in 1958 partly thanks to choosing candidates to appeal to Social Credit voters, an effort earlier helped by the populism of John Bracken. A government of this party collapsed over the decision of whether to accept nuclear warheads from the (*) United States. Another leader of this party aimed to recognize Quebec as a “distinct society” with the Meech Lake and Charlottetown Accords. John Diefenbaker and Brian Mulroney led - for 10 points - what Canadian party, the traditional opponents of the Liberals?

ANSWER: Progressive Conservative Party (of Canada)

3. *Description acceptable.* Uruguay’s Broad Front coalition government implemented this kind of policy in 2014 in what’s been called the “great experiment.” It’s not tax or marriage related but all major parties in Canada except the Conservative Party have endorsed this type of policy. Rand Paul used the word “privilege” in his criticism of (*) Jeb Bush’s position on this kind of policy. Tourists often to visit so-called “coffeeshops” on account of the implementation of this policy in Amsterdam. For 10 points, identify this action done by Washington and Colorado by which a certain drug became legal.

ANSWER: legalization of marijuana [accept clear equivalents; prompt on less specific answers like legalization of drugs in general]

4. The incentive to reveal all information during these events is known as the linkage principle. Game theory analysis of these events was pioneered by William Vickrey. Computers can assist in optimizing the design of these events, which can involve choosing structures based on the first and second (*) price. Interactive varieties of these events, like the English and Dutch types, contrast with ones that use sealed envelopes. The “winner’s curse” involves overpaying in - for 10 points - what kind of event common in the art market, in which goods are bid on?

ANSWER: auctions [prompt on games]

5. The “Grandioso” theme that plays at the end of a piece *titled for this city [emphasize]* is a recurrence of that piece’s initial theme, marked *Allegro grazioso*, which features a short-short-long theme. That piece was given a “sluggish” premiere by Walter Damrosch. Thad Jones played “Pop Goes the Weasel” on a song *titled for this city* written by Count Basie. This city’s Hot Club promoted the (*) Gypsy Jazz movement, which included Django Reinhardt. Four taxi horns play in a George Gershwin piece titled for an “American in” - for 10 points - what city, where jazz played at the Moulin Rouge?

ANSWER: Paris

6. This character’s lover believes that Lombard sunshine isn’t as cheerful as that of southern Italy. That lover is repeatedly called out to by this character with the inquiry “Why tarriest thou?” Professor Baglioni compares this character to a woman “as lovely as the dawn” who was gifted to Alexander the Great. After consuming (*) liquid from a silver vase crafted by Benvenuto Cellini at the end of the story, this character dies. For 10 points, name this character loved by Giovanni whose touch and breath bring death, the title child of a Hawthorne story.

ANSWER: Rappaccini’s daughter [or Beatrice Rappaccini; accept any answers indicating the daughter of Giaocomo Rappaccini; prompt on just Rappaccini]

7. This African country didn't establish an official military for eleven years after its independence. This country underwent an economic boom after the discovery of the Orapa diamond mines during the tenure of its first President, who married a white woman named Ruth Williams. This country's high (*) standard of living was marred by the AIDS epidemic, and it now has the second-highest AIDS prevalence rate behind Swaziland. Seretse Khama led - for 10 points - what African nation, the former colony of Bechuanaland with capital Gaborone?

ANSWER: Republic of Botswana [or Lefatshe la Botswana]

8. One of these reactions relies on the formation of a xanthate followed by a hydride transfer which yields a carbonyl sulfide and methanethiol. A type of this reaction displays a large deuterium isotope effect. The rate-limiting step of the aldol reaction is the (*) "conjugate base" form of one of these reactions. A type of this reaction requires substituents with an antiperiplanar orientation. Alkenes can be generated from the addition of a strong base to an alkyl halide via one of these reactions. For 10 points, name type of reaction where two substituents leave a molecule.

ANSWER: elimination [accept E1, E2, or E1cb]

9. Étaín is turned into this substance after being struck by Fúamnach's scarlet wand. A lover of Anapos is turned into this substance after trying to stop the abduction of Persephone. The daughter of Epimetheus was one of the few *not* killed by this substance after Nyctimus was sacrificed by his father (*) Lycaon. The daughters of Danaus are doomed to carry this substance for eternity, and those whose deaths involve this substance are sent to Tlaloc's realm. For 10 points, name this substance that makes up the realms of Njord, Amphitrite, and Poseidon.

ANSWER: water

10. While delivering some of these objects, Newman screams, "oh, the humanity!" when his truck ignites after driving over paint thinner that was laid down by Kramer. On *Parks and Recreation*, Ron Swanson noted that *this* is "practically a vegetable." Bart Simpson catches a (*) three-eyed one of these animals near the nuclear power plant. Another of these animals obsesses over the address of a dentist's office on Wallaby Way, Sydney. For 10 points, name this type of animal that includes the Ellen DeGeneres-voiced Dory, Marlin, and his son Nemo.

ANSWER: fish [accept flounders or fish meat or blinkys]

11. In a satirical poem, this character cuts bread and butter during their first and last encounters with the title character. This character is brought to tears by the lines: "Often by the setting moon I see the ghosts of my children; half viewless they walk in mournful conference together." During a storm, this character's hands are kissed in a game of "counting." After discovering that this character (*) married Albert, her spurned lover requests a pair of pistols and shoots himself. For 10 points, name this subject of Young Werther's unrequited love.

ANSWER: Charlotte S. [or Lotte]

12. A work with this title only received the Norman Wait Harris Bronze Medal after being beaten by a Louis Ritman painting, and was purchased for \$300. Another work with this title depicts a bespectacled charwoman named Ella Watson gripping a broom in front of a blurred (*) mop and an American flag. A painting with this title depicts Byron McKeeby and the artist's sister Nan standing in front of a Cedar Rapids home. Gordon Parks parodied - for 10 points - what painting of a stern-looking woman and a pitchfork-wielding man by Grant Wood?

ANSWER: American Gothic

13. Communists, socialists, and Christian democrats governed this country in a three-party alliance until the May 1947 crisis. This country grew rapidly during the "thirty glorious years." The Schumann Declaration announced the support of supranationalism by this country, where the treaty creating the European (*) Coal and Steel Community was signed. During a colonial crisis, a war hero became President of this country after twelve years of retirement. For 10 points, name this country whose Fifth Republic was founded by Charles de Gaulle.

ANSWER: France [or French Republic; or Republique Française]

14. Miniature wooden sculptures are often attached to these clothes with ropes to serve the function of pockets. "Swinging sleeves" is a formal style of these clothes for women, whose sashes for them are often very elaborate and cost far more than men's ones. A promotion to wear one of these on Wednesdays paired with a (*) Monet painting led to accusations of cultural appropriation at the Boston Museum of Fine Arts. The *yukata* is a casual summer variety of - for 10 points - what traditional garment, whose name means "thing to wear" in Japanese?

ANSWER: kimono [or kimonos from non-Japanese speakers; accept yukata until it is read; prompt on robes or clothes or less specific answers]

15. Three pamphlets regarding this practice were published by Andreas Karlstadt. The Words of Institution are used to consecrate this practice, which is exemplified by Corinthians 11:23-25. Though they were originally linked, this practice diverged from a communal gathering called (*) *agape*. This practice was the subject of debates at the Marburg Colloquy about the Real Presence and transubstantiation. “Do this in remembrance of me” is a line inspiring - for 10 points - what practice of consuming bread and wine in remembrance of Christ?

ANSWER: Eucharist [or Holy Communion; accept breaking of bread; generously accept agape until it is read; prompt on Last Supper or Remembrance of Christ]

16. Ogden Nash attacked this poem for overuse of metaphor and simile in his work “Very Like a Whale.” This poem’s second stanza contrasts leaves “when Summer is green” with leaves “when Autumn hath blown” to describe its central group, whose eyes “waxed deadly and chill” after an Angel of Death “breathed in the face of the (*) foe as he passed.” This poem opens by describing an army “gleaming in purple and gold” coming down “like a wolf on the fold.” For 10 points, name this Lord Byron poem about a failed Assyrian conquest.

ANSWER: “The Destruction of Sennacherib”

17. Both sides develop this piece to the C file in the Giuoco Piano. The Nimzo-Indian Defense is distinguished by Black’s aggressive development of this piece on the third move. Hypermodern openings often develop a side pawn to allow this piece to develop to the second rank via (*) fianchetto. This piece can be “good” or “bad” depending on the color of the squares it is confined to, and, like the knight, it’s usually informally assigned a value of three points. For 10 points, name this chess piece that moves in diagonals, named for a religious figure.

ANSWER: bishop

18. A Wöhler or S-N curve plots the magnitude of this quantity against cycles to failure. Shot or laser peening may be used to create the residual type of this phenomenon. An object describing this quantity couples the normal and traction vectors and obeys a transformation law depicted in (*) Mohr’s circle; that second-order tensor is named for Cauchy. Forces parallel to the cross-section cause the shear type of this phenomenon. Young’s modulus derives from the linear portion of a plot of strain against - for 10 points – what non-pressure quantity, equal to force per unit area on a material?

ANSWER: stress

19. An artist from this country spent four years producing a kinetic model of a city, and called it *Metropolis II*. One artist spent their entire three-day-long visit to this country in a small room with a wild coyote. Allan Kaprow’s “Happenings” originated in this country, and inspired an artist who works in this country named (*) Claes Oldenburg. A graffiti artist from this country died of a heroin overdose in 1988. For 10 points, name this country that was home to Jean-Michel Basquiat, whose works can be found at this country’s Whitney Museum.

ANSWER: United States of America [accept U.S.A.]

20. KNDREP discoveries led this organization to investigate the Valley of the Drums. Lois Gibbs’ activism led to an act granting more funding to this organization, which was accused of deleting cautionary information while led by an ex-Governor of New Jersey. This organization’s first head was (*) William Ruckelshaus. Once headed by Christine Whitman, this agency used its “Superfund” to help places like Love Canal, where it organized a cleanup. Richard Nixon created - for 10 points - what agency responsible for regulating pollution?

ANSWER: Environmental Protection Agency [or USEPA]

21. A work by this philosopher states that, because the world was created as an intelligent living creature, it must have a soul that is composed of Sameness, Difference, and Being. This thinker argued that understanding of non-material abstract ideas allows the highest perception of reality and was credited by Edmund Gettier as defining (*) knowledge as “justified true belief.” The idea that each element is represented by a perfect solid was introduced by - for 10 points - what creator of the Theory of Forms, who wrote dialogues like *Timaeus* and *Theaetetus*?

ANSWER: Plato [or Platon]

22. This city's ceremonial Oba ruler comes from the Edo ethnic group. The artificial Banana Island in this city is an expansion of the affluent Ikoyi neighborhood, which is shielded from storms by Victoria Island. This city's Bar Beach is the site of a planned city called Eko Atlantic. A film industry called "Nollywood" is centered in this city, whose name is derived from the (*) Portuguese for the surrounding bodies of water. Abuja replaced this city as the capital of its country. For 10 points, name this Nigerian city, the most populous in Africa.

ANSWER: Lagos

23. Kinks in the dispersion relations of these entities due to rigid shifts of the Fermi sphere are Kohn anomalies. Real momentum and crystal momentum are shown to be separately conserved quantities in processes where these entities scatter off each other termed (*) Umklapp. Coupling of electrons with these entities forms Cooper pairs. The Debye model predicts that heat capacity depends on temperature cubed by considering a lattice populated by these quasiparticles. For 10 points, name these quantized lattice vibrations.

ANSWER: phonons

24. A poet from this country penned the collection *Nostalgia for Death*, which was translated into English by Eliot Weinberger. Another poet from here addressed a "black and brilliant creature" that exists in the "abstract city between dizzy geometries" in the poem "Salamander." That poet imagined the "turning course of a (*) river... arriving forever" in a 584-line-long poem that opens and closes with the description of a "willow of crystal, a poplar of water." For 10 points - name this country home to the author of "Sunstone," Octavio Paz.

ANSWER: Mexico

BONUSES

1. Pickering emulsions can be stabilized by the addition of these particles. For 10 points each:

[10] Name these nanoparticles with two different surfaces that can undergo different chemical reactions.

ANSWER: Janus particles

[10] Instead of solid particles, classical emulsions can be stabilized by these molecules, such as sodium dodecyl sulfate, which can aggregate to form micelles.

ANSWER: surfactants [or detergents]

[10] Surfactants can decrease this property at a liquid-gas interface. This property is responsible for the formation of a meniscus.

ANSWER: surface tension

2. Apollo kidnapped this daughter of the Lapith king Hypseus. For 10 points each:

[10] Name this nymph, whose kidnapping took place after Apollo witnessed her wrestling with a lion that was terrorizing her father's flocks of sheep.

ANSWER: Cyrene

[10] Apollo's tryst with Cyrene produced this demi-god, who fathered the hunter Actaeon and invented beekeeping.

ANSWER: Aristaeus

[10] Cyrene's other son with Apollo was Idmon, a seer who predicted his own death after joining this group of heroes led by Jason.

ANSWER: the Argonauts

3. Worlds explored by this game's expansions include Dominaria, Zendikar, and Ravnica. For 10 points each:

[10] Name this popular trading card game in which players use five colors of mana produced by lands to cast spells.

ANSWER: Magic: The Gathering [or MTG]

[10] In Magic, if you don't like your opening hand, you can reshuffle and draw a new hand with one fewer card, an action given this name. The name was borrowed from a practice of informally allowing second strokes in golf.

ANSWER: Paris mulligan

[10] New Magic tournament rules allow players to perform this action *for one* if they took a mulligan. This keyword refers to looking at some number of cards on top of the deck, then choosing to put them on the top or bottom.

ANSWER: scrying

4. Answer the following about the purported Samba Rebellion, for 10 points each.

[10] The Samba Rebellion took place in this colony, whose name was coined by Robert de la Salle, who explored it along with the Italian Henri de Tonti.

ANSWER: French Louisiana

[10] The Samba Rebellion was contemporaneous with a revolt in French Louisiana by this Native American group, which was divided into an upper class called "Suns" and a lower class called "Stinkards."

ANSWER: Natchez people

[10] The participants in the Samba Rebellion were these kind of people brought from Africa via the Triangle Trade.

ANSWER: slaves

5. In the 1950s and '60s, this playwright frequently starred in his own plays alongside his wife Franca Rame. For 10 points each:

[10] Name this Italian playwright, who wrote about a clever Maniac's impersonation of a judge in his *Accidental Death of An Anarchist*.

ANSWER: Dario Fo

[10] This earlier Italian playwright created an actor whose fall from a horse leads him to believe he's Henry IV. He also wrote *Six Characters in Search of an Author*.

ANSWER: Luigi Pirandello

[10] *Six Characters in Search of an Author*, *Tonight We Improvise*, and this third play make up Pirandello's "theatre in the theatre" trilogy. It opens with a conversation between Delia Morello and Francesco Savio.

ANSWER: Each In His Own Way

6. This piece of infrastructure is located along Route 13. For 10 points each:

[10] Identify this massive fixed link which connects the Hampton Roads area directly with the Delmarva peninsula.

ANSWER: Chesapeake Bay Bridge-Tunnel [or CBBT]

[10] Since it's near the Atlantic, the CBBT was built to withstand these massive storms, which have winds of at least 74 miles per hour and are given names like Andrew.

ANSWER: hurricanes [or cyclones]

[10] The CBBT is very useful for people traveling to this biggest Maryland resort town, which swells from 7,000 to over 300,000 people when tourists come in for the summer.

ANSWER: Ocean City

7. A major part of taphonomy is the study of the formation of these things. For 10 points each:

[10] Name these objects which can be produced through means such as permineralization or casting and molding. The index types of these objects are used to define geological periods.

ANSWER: fossils

[10] Most major animal phyla appeared during this event in the first period of the Paleozoic. Stephen Jay Gould and Simon Conway Morris disputed interpretations of Burgess Shale fossils like *Opabinia* from this event.

ANSWER: Cambrian explosion [or Cambrian radiation; prompt on partial answer]

[10] The Cambrian explosion wiped out this broad class of frond-like, sessile organisms like *Charnia* and *Dickinsonia*. Many fossils from this group come from the Doushantuo Formation.

ANSWER: Ediacaran biota [or Ediacaran fauna]

8. Identify the following about the pre-genocide Armenian diaspora, for 10 points each.

[10] This region of southeast Anatolia was the locus of the greatest Armenian kingdom of the Middle Ages, which frequently assisted the Crusaders and was even ruled by the Lusignan dynasty.

ANSWER: Cilicia [or Kilikia]

[10] Under this dynasty, Armenian merchants established themselves in the New Julfa quarter, which was established by one of its rulers in the capital of Isfahan.

ANSWER: Safavid dynasty [or Safavi dynasty]

[10] Armenians trading in the Indian Sea set up a community in this largest city in West Bengal, home to a massacre called its "Black Hole" during British times.

ANSWER: Calcutta [or Kolkata; or Calicut]

9. Its name interchangeably refers to lightning bolts or diamond-like indestructibility. For 10 points each:

[10] Identify this sect of Buddhism which became popular in China under the Tang, giving rise to the name *Tangmi*. It is the origin of most tantric practices, such as those that were incorporated into Tibetan Buddhism.

ANSWER: Vajrayana Buddhism

[10] Vajrayana teachings generally don't fall under the doctrine of the Three Turnings of one of *these objects* representing dharma. Idealized kings are often called *chakravartin* in reference to these objects on chariots.

ANSWER: wheels

[10] In Vajrayana Buddhism, the Wisdom Queen Mahamayuri is generally represented by one of these animals. The greatest of the seven Yazidi holy beings, Melek Taus, is also represented as one of these animals.

ANSWER: peacocks

10. This psychologist posed the Heinz dilemma to divide subjects into pre-conventional, conventional, and postconventional levels of moral reasoning. For 10 points each:

[10] Name this American psychologist who developed a six-fold theory of moral development.

ANSWER: Lawrence Kohlberg

[10] This German-born developmental psychologist considered such conflicts as "autonomy vs. shame" and "industry vs. inferiority" in his eight-stage theory of psychosocial development.

ANSWER: Erik (Homburger) Erikson

[10] In 1966, this Canadian developmental psychologist expanded on Erikson's work, arguing that both identity resolution *and* identity confusion influenced the developing individual to a degree.

ANSWER: James Marcia

11. In his Nobel Prize acceptance speech, this author echoed Faulkner's refusal to "accept the end of man." For 10 points each:

[10] Name this recently deceased Colombian author. He set his books *Leaf Storm* and *One Hundred Years of Solitude* in the fictional town of Macondo.

ANSWER: Gabriel José de la Concordia García Márquez

[10] In this Garcia Marquez story, a mangled angel serves as a town's source of entertainment until the arrival of a spider-woman. At its end, the title character flies off into the horizon like a "senile vulture."

ANSWER: "A Very Old Man with Enormous Wings" [accept "Un señor muy viejo con unas alas enormes"]

[10] In Garcia Marquez's story "The Handsomest Drowned Man in the World," the men and women of a small town unanimously decide to assign *this* name to the title character.

ANSWER: Esteban

12. This essay coined the phrase "dismal science" to refer to economics. For 10 points each:

[10] Name this Thomas Carlyle essay, which contains a description of its imaginary audience leaving in disgust, which makes sense because the essay is a horribly racist defense of slavery.

ANSWER: "An Occasional Discourse on the Negro Question"

[10] "An Occasional Discourse on the Negro Question" sparked an intense debate between Carlyle and *this other intellectual*, who created the harm principle.

ANSWER: John Stuart Mill

[10] Carlyle's essay references this recent event caused by a disease affecting tubers to suggest that poor whites, especially those in Ireland, weren't much worse off than slaves.

ANSWER: Irish potato famine [accept clear equivalents like Irish potato blight]

13. Magnusson Klemencic Associates consulting firm is headquartered in this city. For 10 points each:

[10] Name this city, where MKA's structural engineers worked on a building that includes the Charles Simonyi Mixing Center and the "Living Room" on the third floor.

ANSWER: Seattle, Washington

[10] The aforementioned building is Seattle's Central Library, which was designed by this Dutch architect and winner of the 2000 Pritzker Prize.

ANSWER: (Remment Lucas) "Rem" Koolhaas

[10] Seattle is also home to this observation tower that was built for the 1962 World's Fair. Visitors can dine in its revolving restaurant SkyCity, which is located 500 feet above the base of the tower.

ANSWER: The Space Needle

14. Recent polls indicate that this party is now first in the polls, surpassing the Social Democrats. For 10 points each:

[10] Identify this far-right political party led by Jimmie Åkesson, which is symbolized by a blue flower.

ANSWER: Sweden Democrats [or Swedish Democrats]

[10] Some right-wingers point to statistics that immigrants commit most instances of this crime in Sweden, whose high rate of it may be due to high reporting rates. Sweden sought to have Julian Assange extradited for this crime.

ANSWER: rape [or sexual assault; or clear equivalents]

[10] Swedish right-wingers are also critical of the rights afforded to these indigenous people of Northern Sweden, such as reindeer husbandry and their own parliament.

ANSWER: Sami [or Lapps]

15. A bizarre interview with this author opens with him missing several basketball shots. For 10 points each:

[10] Name this contemporary author, whose character Patty Berglund receives a basketball scholarship to the University of Minnesota in his novel *Freedom*. In another novel, he wrote about the Lambert family.

ANSWER: Jonathan Earl Franzen

[10] The title of Franzen's debut novel, *The Twenty-Seventh City*, refers to this Midwestern city. In the novel, the businessman Martin Probst promotes the construction of this city's Gateway Arch.

ANSWER: St. Louis, Missouri

[10] This most recent Franzen novel centers on the amnesiac Pip Tyler, who takes on an internship with The Sunlight Project in Bolivia.

ANSWER: Purity

16. This piece is its artist's only work permanently housed in Britain. For 10 points each:

[10] Identify this marble relief that depicts an infant John the Baptist holding out a bird to baby Jesus, who lies sprawled across Mary's lap.

ANSWER: Taddei Tondo

[10] The *Taddei Tondo* was carved by this Italian Renaissance sculptor, whose more famous marble sculptures include the *Pietà* and an enormous *David*.

ANSWER: Michelangelo Buonarroti

[10] By definition, Michelangelo's *Taddei*, *Pitti* and *Doni* tondos all have this quality. Parmigianino's *Self-Portrait in a Convex Mirror* also has this quality.

ANSWER: they are circular [accept synonyms, such as "round"]

17. Answer the following about the Ostsiedlung [*"ost-ZEED-lung"*] expansion into Eastern Europe, for 10 points each.

[10] This order of German knights founded in 1190 led crusades into Eastern Europe that helped facilitate the expansion.

ANSWER: Teutonic Knights [or Teutonic Order]

[10] The most common German medieval town law used in Eastern Europe was named for this Saxon city, which suffered a brutal sack by Catholic League forces during the Thirty Years' War.

ANSWER: Magdeburg

[10] Krakow thrived after it was granted Magdeburg rights by a king of this name known as "the Chaste." The first ruler to call himself king of Poland, who also had this name, funded the missions of Adalbert of Prague.

ANSWER: Boleslaw (pronounced "*bo-LEH-swaff*" but be lenient obviously)

18. Indicators of this substance at this location include recurring slope lineae that grow during warm seasons. For 10 points each:

[10] Name this substance which was reported near Mount Sharp in 2015. It may have created Peace Vallis.

ANSWER: liquid water on Mars [accept "brine" in place of "water"; prompt on just "water" by asking "where is the water?"]

[10] The reports of water on Mars come from *Curiosity*, which is exploring this crater on Mars. Three terrain types meet at its Glenelg site, and it may have been the location of a freshwater lake.

ANSWER: Gale crater

[10] Part of *Curiosity*'s goal is to study the cycling of this molecule, which accumulates in dry ice caps on Mars's poles and causes a greenhouse effect like it does on Earth.

ANSWER: carbon dioxide [or CO₂]

19. This philosopher argued against idealism in his paper "Are there A Priori Concepts?" For 10 points each:

[10] Identify this philosopher, who argued that we can make major contributions to moral philosophy through examining the ways we describe actions in his paper "A Plea For Excuses."

ANSWER: John Langshaw Austin

[10] J. L. Austin was a philosopher from this country, the home of Bertrand Russell.

ANSWER: The United Kingdom (of Great Britain and Northern Ireland) [or Great Britain]

[10] Austin used this adjective to describe statements which not only describe a given reality, but change it. This adjective was also used to describe the acting-like nature of gender by Judith Butler in *Gender Trouble*.

ANSWER: performative [accept other forms of the word; accept performative utterances]

20. Franz Liszt criticized this piece as being too rooted in the style of Leipzig. For 10 points each:

[10] Identify this chamber piece by Robert Schumann, whose second movement transitions from a funeral march into a more frenetic theme. Its third movement consists almost entirely of ascending scales.

ANSWER: Schumann's Piano Quintet in E-flat major [or Schumann's Op. 44]

[10] This composer's suggested changes to the Piano Quintet may have been the source of Liszt's criticism, since this composer was based out of Leipzig. His own piano pieces include the *Songs Without Words*.

ANSWER: Felix Mendelssohn

[10] When the quintet finally premiered in 1843, this wife of Robert Schumann played the piano part.

ANSWER: Clara Schumann [or Clara Wieck]

21. This emperor personally commanded the fleet that lost at the Battle of the Masts. For 10 points each:

[10] Identify this emperor who attempted to put an end to the Monothelitism controversy with an edict known as the Type of [him]. He was assassinated on rumors that he planned to move the capital to Syracuse.

ANSWER: **Constans II**

[10] Constans II negotiated a treaty with Mu'awiya to keep control of this and other Anatolian regions. This region was the home of the emperor Zeno, as well as Leo III, who founded a dynasty named for it.

ANSWER: **Isauria**

[10] Constans II withdrew Roman troops from this region, meaning that the city of Alexandria was lost for good.

ANSWER: **Egypt** [or **Aegyptus**]

22. This model assumes that electrons' behavior may be treated classically and that they accumulate negligible momentum between collisions. For 10 points each:

[10] Name this model of the behavior of electrons within a solid material. It can be used to explain Ohm's Law.

ANSWER: **Drude** model [or **Drude-Sommerfeld** model]

[10] Arnold Sommerfeld, who reconciled the Drude model with fermion statistics, is better known for introducing this coupling constant of the electromagnetic force.

ANSWER: **fine structure** constant [prompt on **α** or **alpha**; do not prompt on "Sommerfeld's constant" because that's just being facetious]

[10] The fine structure constant can be expressed as the product of the vacuum permeability and this constant divided by twice the Von Klitzing constant. This quantity is roughly three hundred million meters per second.

ANSWER: **speed** of **light** in a vacuum [accept **c**]

23. Schoolchildren in this poem learn that "those to whom evil is done / do evil in return." For 10 points each:

[10] Identify this poem collected in *Another Time* that opens with its speaker sitting in "one of the dives / On Fifty-second Street."

ANSWER: **"September 1, 1939"**

[10] The author of "September 1, 1939" also wrote this poem, whose title figure "knew human folly like the back of his hand." When this poem's title figure laughed, "little children died on the streets."

ANSWER: **"Epitaph on a Tyrant"**

[10] This Anglo-American poet penned "September 1, 1939" and "Epitaph on a Tyrant," along with "Musee des Beaux Arts."

ANSWER: W. H. **Auden**

24. The Cartesian product performed on these objects is analogous to multiplication. For 10 points each:

[10] Identify these collections of objects in mathematics. They're called null if they have no members.

ANSWER: **sets**

[10] After independently discovering Russell's paradox, this man developed the first axiomatic set theory. He proved and sometimes names a theorem stating that every set can be arranged so that each subset has a least element.

ANSWER: Ernst **Zermelo** (the theorem is the well-ordering theorem)

[10] Zermelo improved on his proof by using a "chain" defined by this mathematician, who also names a partition of sets such that all elements of one set are less than all elements of the other.

ANSWER: Richard **Dedekind** [accept **Dedekind** cut]